Table of Contents

As filed with the Securities and Exchange Commission on September 17, 2018

Registration No. 333-226976

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

Gritstone Oncology, Inc.

(Exact name of Registrant as specified in its charter)

Delaware	2836	47-4859534
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

5858 Horton Street, Suite 210
Emeryville, California 94608
(510) 871-6100
(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)

Andrew Allen, M.D., Ph.D.
President and Chief Executive Officer
Gritstone Oncology, Inc.
5858 Horton Street, Suite 210
Emeryville, California 94608
(510) 871-6100
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Alan C. Mendelson
Brian J. Cuneo
Latham & Watkins LLP
140 Scott Drive
Menlo Park, California 94025
(650) 328-4600

David Peinsipp
Andrew S. Williamson
Charles S. Kim
Kristin VanderPas
Cooley LLP
101 California Street, 5th Floor
San Francisco, California 94111
(415) 693-2000

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 each class of securities to be registered	Amount to be Registered(1)	Proposed Maximum Aggregate Offering Price Per Share	Proposed Maximum Aggregate Offering Price(2)	Amount of Registration Fee(3)
Common Stock, $0.0001 par value per share	6,982,142	$15.00	$104,732,130	$13,040

(1) Includes 910,714 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 $9,960 in connection with the previous filing of the registration statement. In accordance with Rule 457(a), an additional registration fee of $3,080 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.

Table of Contents

SUBJECT TO COMPLETION. DATED SEPTEMBER 17, 2018

6,071,428 Shares

Common Stock

This is an initial public offering of shares of common stock of Gritstone Oncology, Inc. We are offering 6,071,428 shares of our common stock.

Prior to this offering, there has been no public market for the common stock. It is currently estimated that the initial public offering price per share will be between $13.00 and $15.00.

We have applied to list our common stock on the Nasdaq Global Market under the symbol “GRTS.”

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

Investing in our common stock involves a high degree of risk. See the section titled “Risk Factors” beginning on page 12 to read about factors you should consider before buying shares of our common stock.

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

	Per Share	Total
Initial public offering price	$	$
Underwriting discounts(1)	$	$
Proceeds, before expenses, to us	$	$

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

Certain of our stockholders, including stockholders affiliated with certain of our directors, have indicated an interest in purchasing an aggregate of approximately $35.0 million of shares of our common stock in this offering at the initial public offering price and on the same terms as the other purchasers in this offering. Of this aggregate amount, bluebird bio, Inc., our collaboration partner and one of our stockholders, has indicated an interest in purchasing $10.0 million of shares of our common stock in this offering. However, because indications of interest are not binding agreements or commitments to purchase, the underwriters may determine to sell more, fewer or no shares in this offering to any of these stockholders, or any of these stockholders may determine to purchase more, fewer or no shares in this offering. The underwriters will receive the same underwriting discount on any shares purchased by these persons or entities as they will on any other shares sold to the public in this offering.

To the extent that the underwriters sell more than 6,071,428 shares of common stock, the underwriters have the option to purchase up to an additional 910,714 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 **Cowen** **Barclays**

BTIG

Prospectus dated , 2018

TABLE OF CONTENTS

Through and including , 2018 (the 25th day after the date of this prospectus), all dealers that effect transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to the dealers' obligation to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.

Neither we nor the underwriters have authorized anyone to provide you with information that is different from that contained in this prospectus or in any free writing prospectus we may authorize to be delivered or made available to you. We and the underwriters 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 offering to sell shares of common stock and seeking offers to buy shares of common stock only in jurisdictions where offers and sales are permitted. The information contained in this prospectus is accurate only as of the date on the front of this prospectus, or other earlier date stated in this prospectus, regardless of the time of delivery of this prospectus or any sale of shares of our common stock.

No action is being taken in any jurisdiction outside the United States to permit a public offering of our common stock or possession or distribution of this prospectus in that jurisdiction. Persons who come into possession of this prospectus in jurisdictions outside the United States are required to inform themselves about and to observe any restrictions as to this offering and the distribution of this prospectus applicable to that jurisdiction.

Gritstone Oncology™, Gritstone™, EDGE™, GRANITE™, SLATE™ and our logo are some of our trademarks and service marks 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, service marks 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, service marks and tradenames.

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 titled "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. Some of the statements in this prospectus constitute forward-looking statements that involve risks and uncertainties. See "Special Note Regarding Forward-Looking Statements." Unless the context otherwise requires or as otherwise noted, references in this prospectus to the "Company," "Gritstone Oncology," "Gritstone," "we," "us" and "our" refer to Gritstone Oncology, Inc.

Gritstone Oncology, Inc.

Overview

We are an immuno-oncology company developing tumor-specific cancer immunotherapies to fight multiple cancer types. Our goal is to extend the benefits of immunotherapy by leveraging new insights into the immune system's ability to destroy cancer cells, based on the study of patients treated with checkpoint inhibitors such as anti-PD-(L)1 antibodies. A key hypothesis that has emerged in the field of immuno-oncology is that there are large groups of cancer patients whose tumors have successfully evaded the immune system (so called "cold" tumors) despite having markers that could be recognized by the immune system. Our approach seeks to generate a therapeutic immune response in these patients by unleashing the demonstrated natural power of a patient's own immune system to recognize short tumor-specific peptide sequences presented on cancer cells, referred to as tumor-specific neoantigens, or TSNA, in order to destroy tumor cells. The importance of TSNA as targets for the immune system was first recognized in 2014 and 2015 in patients treated with checkpoint inhibitors by two of our co-founders, Dr. Timothy Chan and Dr. Naiyer Rizvi. Leveraging these insights, we have built our tumor-specific immunotherapy approach on two key pillars—first, our proprietary Gritstone EDGE™ machine learning-based platform, which gives us a powerful ability to predict from a routine tumor biopsy the TSNA that are presented on a patient's tumor cells; and second, our ability to develop and manufacture potent immunotherapies utilizing patients' TSNA to drive the patient's immune system to attack and destroy tumors. Our tumor-specific immunotherapy portfolio consists of our personalized immunotherapy product candidate, GRANITE-001, which is manufactured uniquely for each patient, and our "off-the-shelf" immunotherapy product candidate series, SLATE, which is designed for selected subsets of patients with common tumor neoantigens.

Our tumor-specific immunotherapy has been tested pre-clinically in non-human primates, the animal model that most closely approximates human immune responses. In this model, we have demonstrated that our immunotherapy elicits potent and sustained T cell responses against delivered antigens. Of particular note, we have shown an ability to effectively prime naïve CD8+ T cells to high levels (comparable to those seen in responders to T cell therapies in clinical studies) against antigens that are new to the recipient's immune system (a so-called *de novo* primed response)—one of the highest immunologic hurdles in activating T cell responses. Because human tumors (and their TSNA) can successfully evade the immune system, overcoming this hurdle by priming a CD8+ T cell response is a key goal of our immunotherapy approach.

We intend to initiate a first-in-human Phase 1/2 clinical trial of GRANITE-001, our first personalized immunotherapy product candidate, in the second half of 2018, evaluating it in the

treatment of common solid tumors, including metastatic non-small cell lung cancer and gastroesophageal, bladder and colorectal cancers, in each case in combination with checkpoint inhibitors provided by our collaborator, Bristol-Myers Squibb Company, or BMS. The Phase 1 portion of our Phase 1/2 trial will seek to establish a dose for further investigation in Phase 2 and to evaluate safety, tolerability and, importantly, immunogenicity of our product candidate. We will seek to further evaluate efficacy and safety in the Phase 2 cohort expansion portion in several common solid tumor types. Our second tumor-specific product candidate series, SLATE, will utilize the same antigen delivery system as GRANITE-001 but contains a fixed cassette with TSNA that are shared across a subset of cancer patients rather than a cassette unique to an individual patient, providing us with an off-the-shelf alternative to our personalized manufactured product candidate, GRANITE-001. We intend to initiate a Phase 2 clinical trial of SLATE-001, our first off-the-shelf product candidate, in the second half of 2019.

Gritstone EDGE—Our TSNA Prediction Platform

The first pillar of our tumor-specific cancer immunotherapy approach is our understanding of TSNA and the application of our proprietary, artificial intelligence based Gritstone EDGE platform to predict the presence of a patient's unique TSNA on tumor cells. While there are frequently hundreds of mutations in the DNA of a tumor cell, only approximately 1% of these mutations are actually transcribed, translated and processed into a unique "non-self" peptide sequence that is presented on the surface of tumor cells and can be recognized by a patient's own T cells. Furthermore, these rare TSNA are usually unique to each individual patient's tumor. Current technologies cannot predict the presence of TSNA with sufficient accuracy to design a therapy that is likely to be effective. The Gritstone EDGE platform consists of proprietary machine learning models that use DNA/RNA sequence data derived from a patient's tumor biopsy to predict which mutations will generate TSNA most likely to be presented on the tumor cell surface. Applying our EDGE platform to data from human tumors, we have shown a nine-fold improvement in the accuracy of prediction with our platform compared to publicly available approaches. We believe that mutations selected by our EDGE platform have a much higher likelihood of being useful targets for immunization than mutations selected using industry standard methods.

Our Tumor-Specific Neoantigen Therapies

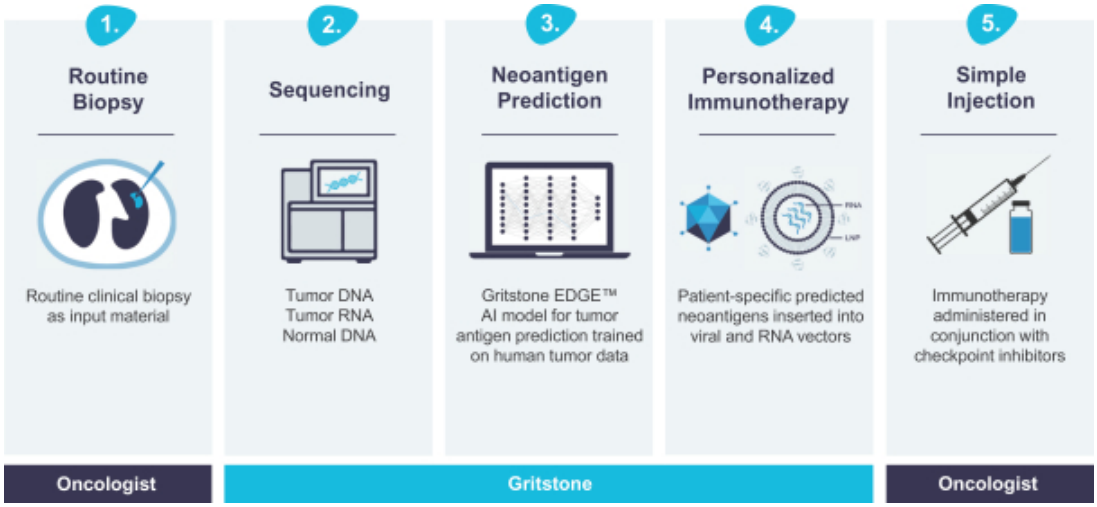
The second pillar of our tumor-specific cancer immunotherapy approach is our ability to develop and manufacture a patient-specific therapeutic to direct a robust T cell response to those TSNA predicted to be presented on the patient's tumor. Each of our immunotherapy product candidates comprise a sequential immunization with a viral prime and RNA boosts delivered by intramuscular injection, which we refer to as our heterologous prime-boost. In our GRANITE-001 product candidate, each of the viral prime and RNA boosts contain a patient-specific set of predicted TSNA, whereas the viral prime and RNA boost in our SLATE product candidate series contains a fixed TSNA cassette that is designed for the subset of patients who carry the relevant neoantigens. Grounded in traditional infectious disease vaccine immunology, and informed by recent successes against pathogens like malaria and Ebola, this two-step immunization utilizes a prime and a boost to educate the patient's T cells to detect TSNA and destroy tumor cells. In non-human primate models, we have demonstrated a profound and specific CD8+ and CD4+ T cell response to antigens administered in this way, CD8+ T cells being the critical cell type for tumor cell killing, and often the hardest response to generate in primates and humans.

Our tumor-specific immunotherapy candidates are intended to fit easily into a community oncology setting and to be administered in earlier lines of treatment, in combination with checkpoint

inhibitors to further drive a robust T cell response, rather than only in refractory or relapsed cancers. We have designed our personalized immunotherapy candidate such that oncologists will not have to alter their treatment practices, and we believe that this will extend the utility of our medicines into the community setting and not limit their use to scarce centers of excellence.

Our Personalized Immunotherapy Process (GRANITE-001)

Our personalized immunotherapy process leverages our proprietary EDGE platform to predict the TSNA that will be presented on a patient's tumor, allowing us to create a patient-specific heterologous prime-boost immunotherapy that is designed to elicit a potent anti-tumor T cell response. We believe that our personalized immunotherapy product candidate will have an addressable population of approximately 70-80% of patients with certain common solid tumor types that typically carry large numbers of mutations, such as lung cancer. Our process begins with a routine tumor needle biopsy from the patient. We utilize our in-house sequencing capabilities with the tumor sample and then apply our proprietary EDGE platform to derive a set of predicted TSNA likely to be presented on the patient's tumor. Using these TSNA, we design highly potent personalized immunotherapies containing the relevant neoantigens to be administered by simple intramuscular injection. Our process is outlined in the figure below.



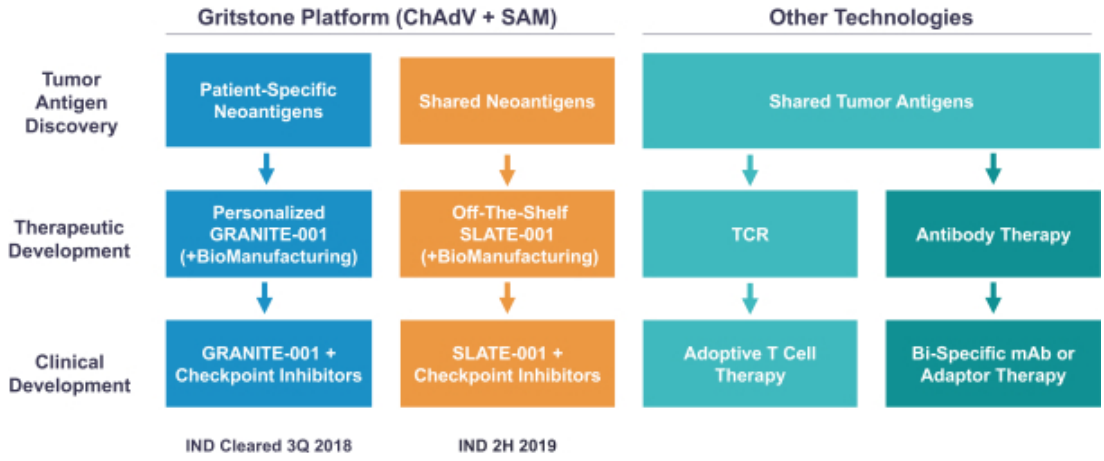
Our EDGE Antigen Identification Engine to Design Off-The-Shelf Neoantigen-Directed Products

While many patients with solid tumors may carry multiple TSNA unique to that patient, it has been shown that a minority of patients will carry a TSNA that is shared with other patients. The presence of these shared TSNA is likely to occur when a functionally important mutation (termed a driver mutation), which is recurrently observed across different patients, carries the potential to be processed and presented by the tumor cell as a neoantigen. Early analyses suggest that while each such shared neoantigen may only be found on less than 2% of patients with a particular tumor type, our heterologous prime-boost system can deliver at least 20 of these TSNA, which we believe will result in the off-the-shelf product candidate having an addressable population of approximately 10-15% of patients within common solid tumor types such as colorectal cancer and lung cancer. Our off-the-shelf product candidates are expected to be specific to a particular tumor type, and the TSNA module is fixed for each product. As a result, the essential aspect to the utilization of the off-the-shelf-product

candidate is the ability to accurately identify patients whose tumors contain one of the TSNA represented within the off-the-shelf product candidate. The routine screening of patients' tumors using commercially-available genomic screens, together with identification of the patient's HLA type from blood with a standard clinical assay, enables identification of such patients.

Our EDGE Antigen Identification Engine—Beyond Tumor-Specific Neoantigens

Beyond TSNA-directed therapeutics, we are leveraging our expertise in cancer genomics and our tumor antigen discovery platform to identify novel peptide sequences (not mutated) that may be shared across common tumor types (shared tumor antigens), which we believe are likely to have value as targets to direct T cells onto tumors specifically. Shared tumor antigen targets enable us to opportunistically partner or develop additional therapeutic approaches to redirect T cells onto tumors using these highly specific targets. These approaches include (1) "off-the-shelf" shared tumor antigens in our heterologous prime-boost platform, (2) modifying the receptors of the patient's own T cells to help them recognize tumor targets (adoptive T cell therapy), and (3) using small adapter proteins that have two recognition arms—one for tumors and one for T cells (bispecific antibodies), as shown in the figure below. In August 2018, we announced our collaboration supporting this strategy with bluebird bio, Inc., or bluebird bio, whereby we will identify up to ten tumor-specific targets and associated T cell receptors for therapeutic application within bluebird bio's cell therapy platform.



Our Team and Investors

To deliver on the promise of our novel therapeutic approach, we have assembled a highly experienced management team with focused expertise in each of our core disciplines of cancer genomics, immunology and vaccinology, clinical and regulatory development and biomanufacturing from several leading biotechnology companies, including Clovis Oncology, Inc., Pfizer Inc., Genentech, Inc. and Foundation Medicine, Inc. Our co-founder Dr. Andrew Allen brings experience as a co-founder and Chief Medical Officer of Clovis Oncology, Inc., with prior experience in various leadership roles at Pharmion Corporation and Chiron Corporation, where he worked on Proleukin (IL-2), the first cancer immunotherapy. The scientific advisory board includes selected experts in relevant disciplines, including Dr. Timothy Chan (Memorial Sloan Kettering Cancer Center) and Dr. Naiyer Rizvi (Columbia University Medical Center), who together first demonstrated that TSNA are key T cell targets in cancer patients responding to checkpoint inhibitor therapy, as well as Dr. James Gulley (National Cancer Institute), who is an international expert in cancer immunotherapy with a focus on vaccines.

We are further supported by a group of leading institutional investors, including Versant Ventures, The Column Group, Clarus, Frazier Healthcare Partners, Lilly Asia Ventures, GV, Redmile Group and Casdin Capital.

Our Strategy

Our goal is to eradicate cancer by initially developing personalized immunotherapies that focus on the unique and individual nature of a patient's tumor. Our strategy to achieve this includes the following key components:

- ***Rapidly advance GRANITE-001, our lead product candidate, in multiple clinical settings, with the objective of generating a significant CD8+ T cell response to tumor-specific neoantigens.*** GRANITE-001 is our first personalized immunotherapy product candidate. It is engineered to elicit a significant T cell response to selected antigens in humans (particularly CD8+ T cell responses) based upon extensive clinical experience with many different vectors in the realm of infectious disease. Our Investigational New Drug application, or IND, for GRANITE-001 was cleared by U.S. Food and Drug Administration, or FDA, in September 2018, and we intend to initiate a first-in-human Phase 1/2 trial of our heterologous prime-boost regimen in combination with checkpoint inhibitors provided by our collaborator BMS in the second half of 2018.
- ***Invest in our Gritstone EDGE platform and maximize its utility across modalities****.* The EDGE platform utilizes proprietary machine learning models and an extensive dataset of over a million HLA-presented peptides from over 300 human tumor and matched normal tissue specimens. We are initially applying the platform to develop multiple formats of personalized cancer immunotherapies—including our heterologous prime-boost immunization containing TSNA (our lead program) as well as "off-the-shelf" therapies targeting shared tumor-specific antigens—in order to maximize the utility of our prediction capabilities across modalities. We intend to continually make investments to improve the EDGE platform's prediction capabilities in order to develop more efficacious medicines. Genomic and immune response data from our clinical trials will serve to further validate and refine our machine learning platform.
- ***Build upon the discoveries from our Gritstone EDGE platform to rapidly move SLATE-001, our shared-TSNA product candidate, into multiple clinical settings where shared neoantigens may have utility.*** This includes—but will not be limited to—KRAS-driven tumors such as colorectal cancer, pancreatic ductal carcinoma and adenocarcinomas of the lung. We plan to submit an IND for SLATE-001 in the second half of 2019, and start Phase 2 clinical trials if and when data from GRANITE-001 have confirmed acceptable safety and immunogenicity of our prime-boost vaccine platform, together with Phase 2 dosing recommendations.
- ***Continue to build our in-house manufacturing capabilities to maintain the highest controls on quality and capacity.*** We believe the speed, quality, reliability and scalability of our manufacturing capabilities will be a core competitive advantage to our clinical development and commercial success. We intend to internalize the majority of the manufacturing steps to drive down both cost and production time, as well as establish full control over intellectual property and product quality. We believe that operating our own manufacturing facility will provide us with enhanced control of material supply for both clinical trials and the commercial market, will enable the more rapid implementation of process changes, and will allow for better long-term margins.
- ***Move tumor-specific immunotherapy into community oncology settings and earlier lines of treatment.*** We are designing our tumor-specific immunotherapy product candidates to fit

into a community oncology setting. This approach is designed to enable oncologists to integrate our tumor-specific immunotherapy product candidates into their treatment practices without requiring a change in the current treatment paradigm. We believe this strategy has the potential to extend the use of our medicines into the community setting, enabling rapid trial execution, and expanding commercial use beyond limited centers of research excellence. Additionally, we intend to develop our tumor-specific immunotherapy product candidates in earlier lines of treatment, where recent clinical data with other forms of immunotherapy suggest efficacy is likely to be stronger, versus being used in highly refractory or late-stage cancer patients.

- ***Enter into collaborations to realize the full potential of our platform.*** The breadth of our EDGE platform enables its application to a variety of therapeutic formats, including cell therapy, bispecific antibodies and other areas where shared tumor antigens could be impactful to cancer treatment. We intend to form collaborations around certain aspects of our platform, such as shared tumor antigens, as we believe we will benefit from the resources and capabilities of other organizations in the manufacture, development and commercialization of such diverse immunotherapies. Aligned with this strategy, our strategic collaboration with bluebird bio involves use of our EDGE platform to identify tumor-specific targets and associated T cell receptors for clinical application within bluebird bio's cell therapy platform.

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 titled "Risk Factors," immediately following this prospectus summary. These risks include the following, among others:

- We are an early-stage biopharmaceutical company with a limited operating history and no products approved for commercial sale. We have incurred significant losses since our inception, and we anticipate that we will continue to incur significant losses for the foreseeable future, which, together with our limited operating history, makes it difficult to assess our future viability.
- We will require substantial additional financing to achieve our goals, and a failure to obtain this necessary capital when needed on acceptable terms, or at all, could force us to delay, limit, reduce or terminate our product development programs, commercialization efforts or other operations.
- Our tumor-specific cancer immunotherapy approach is based on novel ideas and technologies that are unproven and may not result in marketable products, which exposes us to unforeseen risks and makes it difficult for us to predict the time and cost of product development and potential for regulatory approval.
- Our business is dependent on the successful development, regulatory approval and commercialization of our personalized immunotherapy product candidate, GRANITE-001, which is in early stages of development and has not been tested in humans.
- We may be unable to obtain regulatory approval for our tumor-specific immunotherapy product candidates under applicable regulatory requirements. The denial or delay of any such approval would delay commercialization of our product 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 delays can occur for a variety of reasons outside of our control.

- 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 trials. If these third parties do not successfully carry out their contractual duties, fail to comply with applicable regulatory requirements or meet expected deadlines, we may be unable to obtain regulatory approval for our tumor-specific immunotherapy product candidates.
- Our success depends on our ability to protect our intellectual property and our proprietary technologies.

Corporate Information

We were founded in August 2015 as a Delaware corporation. Our principal executive offices are located at 5858 Horton Street, Suite 210, Emeryville, California 94608, and our telephone number is (510) 871-6100. Our website address is www.gritstoneoncology.com. The information on, or that can be accessed through, our website is not part of this prospectus and is not incorporated by reference herein. We have included our website address as an inactive textual reference only.

Implications of Being An Emerging Growth Company

We are an emerging growth company as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. We will remain an emerging growth company until the earliest of (1) the last day of the fiscal year following the fifth anniversary of the consummation of this offering, (2) the last day of the fiscal year in which we have total annual gross revenue of at least $1.07 billion, (3) the last day of the fiscal year in which we are deemed to be a “large accelerated filer” as defined in Rule 12b-2 under the Securities Exchange Act of 1934, as amended, or the Exchange Act, which would occur if the market value of our common stock held by non-affiliates exceeded $700.0 million as of the last business day of the second fiscal quarter of such year or (4) the date on which we have issued more than $1.0 billion in non-convertible debt securities during the prior three-year period. An emerging growth company may take advantage of specified reduced reporting requirements and is relieved of certain other significant requirements that are otherwise generally applicable to public companies. As an emerging growth company:

- We will present in this prospectus only two years of audited 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;
- 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.

THE OFFERING

Common stock offered by us	6,071,428 shares.
Underwriters' option to purchase additional shares from us	We have granted the underwriters a 30-day option to purchase up to 910,714 additional shares at the initial public offering price, less underwriting discounts and commissions.
Common stock to be outstanding immediately after this offering	28,233,314 shares (or 29,144,028 shares if the underwriters exercise in full their option to purchase additional shares).
Use of proceeds	We estimate that the net proceeds from this offering will be approximately $76.0 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 $14.00 per share, the midpoint of the range set forth on the cover of this prospectus, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. We currently expect to use the net proceeds from this offering to fund our planned Phase 1/2 clinical trial of GRANITE-001, continued buildout of our manufacturing facility, internal research and development activities, including preclinical and IND-enabling activities for SLATE-001, and for working capital and general corporate purposes. See "Use of Proceeds" on page 73 for a more complete description of the intended use of proceeds from this offering.
Risk factors	See "Risk Factors" beginning on page 12 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.
Proposed Nasdaq Global Market symbol	"GRTS"

The number of shares of common stock to be outstanding after this offering is based on 22,161,886 shares of common stock outstanding as of August 31, 2018 and includes an aggregate of 19,409,132 shares of common stock issuable upon conversion of our outstanding convertible preferred stock, and excludes the following:

- 2,376,054 shares of common stock issuable upon the exercise of outstanding stock options as of August 31, 2018 having a weighted-average exercise price of $3.94 per share;
- 92,815 shares of common stock reserved for issuance pursuant to future awards under our 2015 Equity Incentive Plan, as amended, as of August 31, 2018, which will become available for issuance under our 2018 Incentive Award Plan after the consummation of this offering;

- 2,690,000 shares of common stock reserved for issuance pursuant to future awards under our 2018 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 on the day prior to the first public trading date of our common stock; and
- 282,334 shares of common stock reserved for issuance under our 2018 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 on the day prior to the first public trading date of our common stock.

In addition, unless we specifically state otherwise, all information in this prospectus reflects and assumes the following:

- a 1-for-6.9 reverse stock split of our common stock and convertible preferred stock to be effected prior to the effectiveness of the registration statement of which this prospectus is a part;
- the automatic conversion, with the requisite approval of our stockholders, of all shares of our outstanding convertible preferred stock at August 31, 2018 into an aggregate of 19,409,132 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 subsequent to August 31, 2018; and
- no exercise of the underwriters' option to purchase up to an additional 910,714 shares of common stock.

Unless otherwise specified and unless the context otherwise requires, we refer to our Series A, Series B and Series C convertible preferred stock collectively as "convertible 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 9 to our audited financial statements and Note 8 to our unaudited interim condensed financial statements included in this prospectus.

Indications of Interest

Certain of our stockholders, including stockholders affiliated with certain of our directors, have indicated an interest in purchasing an aggregate of approximately $35.0 million of shares of our common stock in this offering at the initial public offering price and on the same terms as the other purchasers in this offering. Of this aggregate amount, bluebird bio, our collaboration partner and one of our stockholders, has indicated an interest in purchasing $10.0 million of shares of our common stock in this offering. However, because indications of interest are not binding agreements or commitments to purchase, the underwriters may determine to sell more, fewer or no shares in this offering to any of these stockholders, or any of these stockholders may determine to purchase more, fewer or no shares in this offering. The underwriters will receive the same underwriting discount on any shares purchased by these persons or entities as they will on any other shares sold to the public in this offering.

Summary Financial Data

The following tables present our selected financial data for the periods and as of the dates indicated. We have derived the following summary statements of operations and comprehensive loss 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 and related notes included elsewhere in this prospectus. We have derived the summary statements of operations and comprehensive loss data for the six months ended June 30, 2017 and 2018, and the balance sheet data as of June 30, 2018, from our unaudited interim condensed financial statements and notes included elsewhere in this prospectus. The unaudited interim condensed financial statements have been prepared in accordance with accounting principles generally accepted in the United States and on the same basis as the audited financial statements and reflect, in the opinion of management, all adjustments, which include only normal, recurring adjustments that are necessary for the fair presentation of the financial information in those statements. Our historical results are not necessarily indicative of the results that may be expected in the future, and the results for the six months ended June 30, 2018, are not necessarily indicative of results to be expected for the full year or any other period. You should read the financial data below in conjunction with our financial statements and related notes included elsewhere in this prospectus and the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations."

	Year Ended December 31,		Six Months Ended June 30,	
	2016	2017	2017	2018
			(unaudited)	
	(in thousands, except share and per share data)			
Statements of Operations and Comprehensive Loss Data:				
Operating Expenses:				
Research and development	$ 13,916	$ 35,691	$ 11,855	$ 24,090
General and administrative	5,064	6,072	2,840	4,852
Total operating expenses	18,980	41,763	14,695	28,942
Loss from operations	(18,980)	(41,763)	(14,695)	(28,942)
Interest income, net	230	386	138	94
Net loss	(18,750)	(41,377)	(14,557)	(28,848)
Unrealized loss on marketable securities	(2)	(71)	(2)	(31)
Other comprehensive loss	$ (18,752)	$ (41,448)	$ (14,559)	$ (28,879)
Net loss per share, basic and diluted(1)	$ (11.21)	$ (20.70)	$ (7.63)	$ (12.62)
Weighted-average number of shares outstanding, basic and diluted(1)	1,672,545	1,999,044	1,906,725	2,285,906
Pro forma net loss per share, basic and diluted(1)		$ (3.02)		$ (1.44)
Pro forma weighted-average number of shares outstanding, basic and diluted(1)		13,699,938		20,091,061

(1) See Notes 2 and 12 to our audited financial statements, and Notes 2 and 10 to our unaudited interim condensed financial statements, included elsewhere in this prospectus for further details on the calculations of our basic and diluted net loss per share, basic and diluted pro forma net loss per share and the weighted-average number of shares used in the computation of the per share amounts.

The table below presents our balance sheet data as of June 30, 2018:

- on an actual basis;
- on a pro forma basis to give effect to: (i) our issuance and sale during July and August 2018 of an aggregate of 921,475 shares of our Series C convertible preferred stock for cash consideration of $12.0 million, which includes 768,115 shares that bluebird bio purchased for cash consideration of approximately $10.0 million in connection with our strategic collaboration; (ii) the automatic conversion of all shares of our convertible preferred stock outstanding at June 30, 2018, together with the shares of Series C convertible preferred stock we issued during July and August 2018, into an aggregate of 19,409,132 shares of our common stock, which will be effective 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 6,071,428 shares of common stock in this offering at an assumed initial public offering price of $14.00 per share, the midpoint of the range set forth on the cover of this prospectus, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

	As of June 30, 2018		
	Actual	Pro Forma	Pro Forma As Adjusted(1)
		(unaudited) (in thousands)	
Balance Sheet Data:			
Cash, cash equivalents and marketable securities	$ 64,490	$ 76,507	$ 152,557
Working capital(2)	61,697	73,714	149,764
Total assets	95,951	107,968	184,018
Convertible preferred stock	165,865	—	—
Accumulated deficit	(90,475)	(90,475)	(90,475)
Total stockholders' equity	78,672	90,689	166,740

(1) Each $1.00 increase (decrease) in the assumed initial public offering price of $14.00 per share (the midpoint of the range set forth on the cover of this prospectus), would increase (decrease) the amount of each of cash, cash equivalents and marketable securities, working capital, total assets and total stockholders' equity by $5.6 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 underwriting discount and commissions and estimated offering expenses payable by us. We may also increase (decrease) the number of shares we are offering. Each increase (decrease) of 1,000,000 in the number of shares we are offering would increase (decrease) the amount of each of cash, cash equivalents and marketable securities, working capital, total assets and total stockholders' equity by approximately $13.0 million, assuming the assumed initial public offering price of $14.00 per share (the midpoint of the range set forth on the cover of this prospectus), remains the same and after deducting the underwriting discount 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.

(2) We define working capital as current assets less current liabilities. See our audited financial statements and unaudited interim condensed financial statements and related notes included elsewhere in this prospectus for details regarding our current assets and current liabilities.

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the risks described below, as well as the other information in this prospectus, including our 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, prospects and stock price. 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 an early-stage biopharmaceutical company with a limited operating history and no products approved for commercial sale. We have incurred significant losses since our inception, and we anticipate that we will continue to incur significant losses for the foreseeable future, which, together with our limited operating history, makes it difficult to assess our future viability.

Biopharmaceutical product development is a highly speculative undertaking and involves a substantial degree of risk. We are an early-stage biopharmaceutical company, and we have only a limited operating history upon which you can evaluate our business and prospects. We have no products approved for commercial sale, have not generated any revenue from product sales and have incurred losses in each year since our inception in August 2015. 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 have only recently received clearance from the FDA for our IND of our first personalized cancer immunotherapy candidate, GRANITE-001, and have not yet initiated any clinical trials.

We have had significant operating losses since our inception. Our net losses for the years ended December 31, 2016 and 2017 were approximately $18.8 million and $41.4 million, respectively, and for the six months ended June 30, 2017 and 2018 were approximately $14.6 million and $28.8 million, respectively. As of June 30, 2018, we had an accumulated deficit of $90.5 million. Substantially all of our losses have resulted from expenses incurred in connection with our research and development programs and from general and administrative costs associated with our operations. GRANITE-001 will require substantial additional development time and resources before we would be able to apply for or receive regulatory approvals and begin generating revenue from product sales. In addition, upon the completion of this offering we expect to incur additional costs associated with operating as a public company. We also do not yet have a sales organization or commercial infrastructure and, accordingly, we will incur significant expenses to develop a sales organization or commercial infrastructure in advance of generating any commercial product sales. We expect to continue to incur losses for the foreseeable future, and we anticipate these losses will increase as we continue to develop GRANITE-001, SLATE-001 and any future product candidates, conduct clinical trials and pursue research and development activities. Even if we achieve profitability in the future, we may not be able to sustain profitability in subsequent periods. Our prior losses, combined with expected future losses, have had and will continue to have an adverse effect on our stockholders' equity and working capital.

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

Since our inception, we have invested a significant portion of our efforts and financial resources in research and development activities for tumor-specific cancer immunotherapies, and working to establish our in-house manufacturing capabilities. Preclinical studies and clinical trials and additional research and development activities will require substantial funds to complete. As of June 30, 2018, we had capital resources consisting of cash, cash equivalents and marketable securities of $64.5 million. We believe that we will continue to expend substantial resources for the foreseeable future in connection with the development of GRANITE-001, SLATE-001 and any other future cancer immunotherapy candidates we may choose to pursue, as well as the continued development of our manufacturing capabilities and other corporate uses. Specifically, in the near term, we expect to incur substantial expenses as we advance GRANITE-001 and SLATE-001 through clinical development, seek regulatory approval, prepare for and, if approved, proceed to commercialization, continue our research and development efforts and invest in our manufacturing facility. These expenditures will include costs associated with conducting preclinical studies and clinical trials, obtaining regulatory approvals, and manufacturing and supply, as well as marketing and selling any products approved for sale. In addition, other unanticipated costs may arise. Because the outcome of any preclinical study or clinical trial is highly uncertain, we cannot reasonably estimate the actual amounts necessary to successfully complete the development and commercialization of GRANITE-001, SLATE-001 or any future immunotherapy product candidates.

We believe that the net proceeds from this offering, together with our existing cash, cash equivalents and marketable securities, will allow us to fund our operating plan for at least 12 months following the date of this offering and through preliminary efficacy data for our planned Phase 1/2 clinical trial for GRANITE-001. However, our operating plans and other demands on our capital resources 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. If we raise additional funds through licensing or collaboration arrangements with third parties, we may have to relinquish valuable rights to our product candidates, or grant licenses on terms that are not favorable to us. 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. Attempting to secure additional financing may divert our management from our day-to-day activities, which may adversely affect our ability to develop our product candidates. In addition, we cannot guarantee that future financing will be available in sufficient amounts or on terms acceptable to us, if at all.

Our future capital requirements depend on many factors, including:

- the scope, progress, results and costs of developing our tumor-specific immunotherapy product candidates, and conducting preclinical studies and clinical trials, including our planned Phase 1/2 clinical trial for GRANITE-001, which we expect to initiate in the second half of 2018;
- the scope, progress, results and costs of conducting studies and clinical trials for our SLATE product candidate series, including the Phase 2 clinical trial for SLATE-001, which we expect to initiate in the second half of 2019;
- the timing of, and the costs involved in, obtaining regulatory approvals for our tumor-specific immunotherapy candidates;
- the number and characteristics of any additional product candidates we develop or acquire;

- the timing and amount of any milestone, royalty or other payments we are required to make pursuant to any current or future collaboration or license agreement;
- the cost of manufacturing our tumor-specific immunotherapies we successfully commercialize, including the cost of scaling up our internal manufacturing operations;
- the cost of building a sales force in anticipation of product commercialization;
- the cost of commercialization activities, 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 trials or other research and development activities or eliminate one or more of our development programs altogether; 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 tumor-specific immunotherapy candidates, 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 or jointly own some aspects of our technologies or product candidates that we would otherwise pursue on our own. We do not expect to realize revenue from sales of products or royalties from licensed products in the foreseeable future, if at all, and unless and until a product candidate is clinically tested, approved for commercialization and successfully marketed. To date, we have primarily financed our operations through the sale of equity securities. We will be required to seek additional funding in the future and currently intend to do so through 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.

Our recurring losses from operations and negative cash flows have raised substantial doubt regarding our ability to continue as a going concern.

Our recurring losses from operations and negative cash flows raise substantial doubt about our ability to continue as a going concern. As a result, our independent registered public accounting firm

included an explanatory paragraph in its report on our financial statements as of, and for the year ended, December 31, 2017. Our ability to continue as a going concern will require us to obtain additional financing to fund our operations. The perception of our ability to continue as a going concern may make it more difficult for us to obtain financing for the continuation of our operations and could result in the loss of confidence by investors, contract manufacturers and employees.

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

The 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 business is dependent on the successful development, regulatory approval and commercialization of our personalized immunotherapy product candidate, GRANITE-001, which is in the early stages of development and has not been tested in humans.

We have no products approved for sale and our initial product candidate, GRANITE-001, a personalized immunotherapy, has not been tested in humans. As such, we face significant translational risk with GRANITE-001 specifically and our tumor-specific immunotherapy approach generally. 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 GRANITE-001, as well as other product candidates derived from our tumor-specific immunotherapy approach, which may never occur. In the future, we may also become dependent on other product candidates that we may develop or acquire; however, no product candidates based on our tumor-specific immunotherapy approach have been tested in humans and given our early stage of development, it may be many years, if at all, before we have demonstrated the safety and efficacy of a personalized immunotherapy treatment sufficient to warrant approval for commercialization.

We have not previously submitted a biologics license application, or BLA, to the FDA or similar regulatory approval filings to comparable foreign authorities, for any product candidate, and we cannot be certain that our product candidates will be successful in clinical trials or receive regulatory approval. Further, GRANITE-001, SLATE-001 or any future product candidates may not receive regulatory approval even if they are successful in clinical trials. If we do not receive regulatory approvals for our product candidates, we may not be able to continue our operations. Even if we successfully obtain regulatory approvals to market a product candidate, our revenue will be dependent, in part, upon the size of the markets in the territories for which we gain regulatory approval and have commercial rights. If the markets or patient subsets that we are targeting are not as significant as we estimate, we may not generate significant revenues from sales of such products, if approved.

We plan to seek regulatory approval to commercialize our product candidates both in the United States and in selected foreign countries. While the scope of regulatory approval generally is similar in other countries, in order to obtain separate regulatory approval in other countries we must comply with numerous and varying regulatory requirements of such countries regarding safety and efficacy. Other countries also have their own regulations governing, among other things, clinical trials and commercial sales, as well as pricing and distribution of our product candidates, and we may be required to expend significant resources to obtain regulatory approval and to comply with ongoing regulations in these jurisdictions.

The clinical and commercial success of our current and any future product candidates will depend on a number of factors, including the following:

- our ability to raise any additional required capital on acceptable terms, or at all;
- our ability to complete IND-enabling studies and successfully submit an IND;
- timely completion of our preclinical studies and clinical trials, which may be significantly slower or cost more than we currently anticipate and will depend substantially upon the performance of third-party contractors;
- whether we are required by the FDA or similar foreign regulatory agencies to conduct additional clinical trials or other studies beyond those planned to support approval of our product candidates;
- acceptance of our proposed indications and primary endpoint assessments relating to the proposed indications of our product candidates by the FDA and similar foreign regulatory authorities;

- our ability to consistently manufacture on a timely basis our personalized immunotherapy candidates;
- our ability, and the ability of any third parties with whom we contract, to 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 cGMPs;
- our ability to demonstrate to the satisfaction of the FDA and similar foreign regulatory authorities the safety, efficacy and acceptable risk-benefit profile of our product candidates;
- the prevalence, duration and severity of potential side effects or other safety issues experienced with our product candidates or future approved products, if any;
- the timely receipt of necessary marketing approvals from the FDA and similar foreign regulatory authorities;
- achieving and maintaining, and, where applicable, ensuring that our third-party contractors achieve and maintain, compliance with our contractual obligations and with all regulatory requirements applicable to our lead product candidate or any future product candidates or approved products, if any;
- the willingness of physicians, operators of hospitals and clinics and patients to utilize or adopt our personalized cancer immunotherapy approach;
- our ability to successfully develop a commercial strategy and thereafter commercialize GRANITE-001, SLATE-001 or any future product candidates in the United States and internationally, if approved for marketing, sale and distribution in such countries and territories, whether alone or in collaboration with others;
- the availability of coverage and adequate reimbursement from managed care plans, private insurers, government payors (such as Medicare and Medicaid) and other third-party payors for any of our product candidates that may be approved;
- the convenience of our treatment or dosing regimen;
- acceptance by physicians, payors and patients of the benefits, safety and efficacy of our product candidate or any future product candidates, if approved, including relative to alternative and competing treatments;
- patient demand for our current or future product candidates, if approved;
- our ability to establish and enforce intellectual property rights in and to our product candidates; and
- our ability to avoid third-party patent interference, intellectual property challenges or intellectual property infringement claims.

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

Our tumor-specific cancer immunotherapy approach is based on novel ideas and technologies that are unproven and may not result in marketable products, which exposes us to unforeseen risks and makes it difficult for us to predict the time and cost of product development and potential for regulatory approval.

We are using our proprietary EDGE tumor-antigen prediction platform to develop tumor-specific immunotherapy product candidates to treat cancer. Our foundational science and product development approach are based on our ability to predict the presence of a patient's tumor-specific neoantigens, or TSNA, and develop a TSNA-directed therapy that will elicit a meaningful T cell response. We believe that this approach may offer an improved therapeutic effect by driving an intense, focused T cell attack selectively upon a patient's tumor. However, this approach to treating cancer is novel and the scientific research that forms the basis of our efforts to predict the presence of TSNA and to develop TSNA-directed cancer immunotherapy candidates is both preliminary and limited. Neither of our tumor-specific immunotherapy product candidates have been tested in humans, and the results of our preclinical animal studies may not translate into humans. For example, our prediction model may fail to accurately predict the presence of TSNA, resulting in little or no T cell activity, or our therapy may fail to elicit a significant or durable enough T cell response to effectively destroy a tumor. As such, we cannot assure you that that even if we are able to develop personalized cancer immunotherapy candidates capable of recognizing TSNA and eliciting a T cell response, that such therapy would safely and effectively treat cancers. We may spend substantial funds attempting to develop this approach and never succeed in developing a marketable therapeutic.

No regulatory authority has granted approval for a personalized cancer immunotherapy based on a heterologous prime-boost approach. As such, we believe the FDA has limited experience with evaluating our approach, which may increase the complexity, uncertainty and length of the regulatory approval process for our product candidates. We may never receive approval to market and commercialize any product candidate. Even if we obtain regulatory approval, the approval may be for targets, disease indications, lines of therapy 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 trials to obtain approval or be subject to post-marketing testing requirements to maintain regulatory approval. If our personalized immunotherapy candidates prove to be ineffective, unsafe or commercially unviable, our entire technology 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.

Results of earlier studies and trials of our product candidates 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 trial process. Success in preclinical studies and early clinical trials does not ensure that later clinical trials will be successful. A number of companies in the biotechnology and pharmaceutical industries have suffered significant setbacks in clinical trials, even after positive results in earlier preclinical studies or clinical trials. These setbacks have been caused by, among other things, preclinical findings made while clinical trials were underway and safety or efficacy observations made in clinical trials, including previously unreported adverse events. Notwithstanding any potential promising results in earlier studies and trials, we cannot be certain that we will not face similar setbacks. Even if our clinical trials are completed, the results may not be sufficient to obtain regulatory approval for our product candidates. In addition, the results of our preclinical animal studies, including our non-human primate studies, may not be predictive of the results of outcomes in human clinical trials. For example, our tumor-specific cancer immunotherapy candidates and any future product candidates may demonstrate different chemical, biological and pharmacological properties in patients than they do in laboratory studies or may interact with human

biological systems in unforeseen or harmful ways. Product candidates in later stages of clinical trials may fail to show the desired pharmacological properties or safety and efficacy traits despite having progressed through preclinical studies and initial clinical trials. Even if we are able to initiate and complete clinical trials, the results may not be sufficient to obtain regulatory approval for our product candidates.

Clinical development involves a lengthy and expensive process with an uncertain outcome, and delays can occur for a variety of reasons outside of our control.

Clinical development is expensive and can take many years to complete, and its outcome is inherently uncertain. Failure can occur at any time during the clinical trial process. Although we expect to initiate a Phase 1/2 clinical trial in the second half of 2018, we may experience delays in initiating or completing our planned studies and trials of GRANITE-001. Additionally, we cannot be certain that studies or trials for GRANITE-001, SLATE-001 or any future product 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 trials 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 trials;
- delays in obtaining regulatory authorization to commence a trial;
- reaching agreement on acceptable terms with prospective contract research organizations, or CROs, and clinical trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;
- 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 trial sites;
- obtaining sufficient quantities of product candidate for use in preclinical studies or clinical trials from third-party suppliers; or
- accessing checkpoint inhibitors for use in combination with our product candidate in preclinical studies or clinical trials, including checkpoint inhibitors that have not been approved by the FDA for such use.

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

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

- we or our third-party contractors may fail to comply with regulatory requirements, fail to maintain adequate quality controls, or be unable to produce sufficient product supply to conduct and complete preclinical studies or clinical trials of our product candidates in a timely manner, or at all;
- we or our investigators might have to suspend or terminate clinical trials of our product candidates for various reasons, including non-compliance with regulatory requirements, a finding that our product candidates have undesirable side effects or other unexpected characteristics, or a finding that the participants are being exposed to unacceptable health risks;
- the cost of clinical trials of our product candidates may be greater than we anticipate;
- the quality of our product candidates or other materials necessary to conduct preclinical studies or clinical trials of our product candidates may be insufficient or inadequate;
- regulators may revise the requirements for approving our product candidates, or such requirements may not be as we anticipate; and
- future collaborators may conduct clinical trials in ways they view as advantageous to them but that are suboptimal for us.

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

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

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

Further, conducting clinical trials in foreign countries, as we may do for certain of our product candidates, presents additional risks that may delay completion of our clinical trials. These risks include the failure of enrolled patients in foreign countries to adhere to clinical protocol as a result of

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

If any of our preclinical studies or clinical trials of our product candidates are delayed or terminated, the commercial prospects of our product candidates may be harmed, and our ability to generate revenues from any of these product candidates will be delayed or not realized at all. In addition, any delays in completing our clinical trials may increase our costs, slow down our product candidate development and approval process and jeopardize our ability to commence product sales and generate revenues. Any of these occurrences may 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 trials may also ultimately lead to the denial of regulatory approval of our product candidates. If GRANITE-001, SLATE-001, any future product candidates or our TSNA prediction platform generally prove to be ineffective, unsafe or commercially unviable, our entire platform and approach would have little, if any, value, which would have a material and adverse effect on our business, financial condition, results of operations and prospects.

As a result of our planned trial design, the Phase 1 portion of our planned Phase 1/2 clinical trial will provide little evidence of the efficacy of our personalized immunotherapy product candidate, GRANITE-001.

Scientific principles and preclinical data suggest that combination treatment of cancer patients with our TSNA-directed immunotherapy product candidate plus checkpoint inhibitors is likely to be most effective for our target indications. The Phase 1 portion of our Phase 1/2 clinical trial, GO-004, will, consequently, involve administration of a combination therapy with GRANITE-001. Notably, all patients in the Phase 1 portion will receive anti-PD-1 monoclonal antibodies, or mAb, as background therapy. Some patients will additionally receive anti-CTLA-4 mAb. Checkpoint inhibitors such as anti-PD-1 and anti-CTLA-4 mAb are known to be effective treatments in many cancer patients and elicit objective responses in some patients. Any objective responses observed in Phase 1 will thus be in patients receiving our experimental therapy together with a checkpoint inhibitor and attribution of objective responses to the effects of GRANITE-001 alone will not be possible. We expect that efficacy will be studied carefully in the Phase 2 cohorts where the relative contributions of our personalized immunotherapy candidate and the checkpoint inhibitor will be dissected and quantified to some degree. As a result, the Phase 1 portion of our planned Phase 1/2 clinical trial will provide little evidence of the efficacy of GRANITE-001, which may not be fully understood by investors or market participants, potentially leading to negative effects on our stock price.

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

To gain approval to market our tumor-specific immunotherapy product candidates, we must provide the FDA and foreign regulatory authorities with clinical data that adequately demonstrate the

safety and efficacy of the product candidate for the intended indication applied for in the applicable regulatory filing. Product development is a long, expensive and uncertain process, 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 trials, even after promising results in earlier preclinical or clinical trials. 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 trials, including previously unreported adverse events. Success in preclinical testing and early clinical trials does not ensure that later clinical trials will be successful, and the results of clinical trials by other parties may not be indicative of the results in trials we may conduct.

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

The research, testing, manufacturing, labeling, approval, sale, marketing and distribution of 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 product 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 product 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 product candidates are 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 trials;
- our inability to demonstrate that the clinical and other benefits of any of our product 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 trials;
- the FDA's or the applicable foreign regulatory agency's non-approval of the formulation, labeling or specifications of GRANITE-001, SLATE-001 or any of our future product candidates;
- the FDA's or the applicable foreign regulatory agency's failure to approve our manufacturing processes and facilities or the 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 products in development, only a small percentage successfully complete the FDA or other regulatory bodies' 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 product candidates, the FDA or the applicable foreign regulatory

agency may grant approval contingent on the performance of costly additional clinical trials which may be required after approval. The FDA or the applicable foreign regulatory agency also may approve our lead product candidate 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 product candidates with the labeling that we believe is necessary or desirable for the successful commercialization of such product candidates.

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

We have chosen to prioritize development of our personalized immunotherapy candidate, GRANITE-001. We may expend our limited resources on candidates or indications that do not yield a successful product and fail to capitalize on other product candidates or indications for which there may be a greater likelihood of success or may be more profitable.

We are currently developing our personalized cancer immunotherapy candidate based on the prediction of a patient's TSNA, in order to address a variety of cancers, including metastatic non-small cell lung cancer, or NSCLC, and gastroesophageal, bladder and colorectal cancers. We have strategically determined to initially focus solely on the development of personalized cancer immunotherapy candidates rather than pursue other types of immunotherapies based, in part, on the significant resources required to develop and manufacture immunotherapies. As a result, we may initially be foregoing other potentially more profitable therapies or those with a greater likelihood of success.

Our decisions concerning the allocation of research, development, collaboration, management and financial resources toward particular product candidates or therapeutic areas may not lead to the development of any viable commercial product and may divert resources away from better opportunities. Similarly, 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 product candidates or misread trends in the oncology 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 product candidates or other diseases and disease pathways that may later prove to have greater commercial potential than those we choose to pursue, or relinquish valuable rights to such product candidates through collaboration, licensing or other royalty arrangements in cases in which it would have been advantageous for us to invest additional resources to retain development and commercialization rights.

In order for our tumor-specific immunotherapy candidate, GRANITE-001, to be commercially viable, they must be utilized in early-stages of cancer treatment given the time required to manufacture the personalized therapy.

Cancer therapies are sometimes characterized as first line, second line or third line, and the FDA often approves new systemic therapies initially only for third line use. When cancer is detected early enough, surgery plus first-line systemic therapy is sometimes adequate to cure the cancer. Whenever first-line therapy, usually chemotherapy, hormone therapy, radiotherapy, surgery or a combination of these, proves unsuccessful, second line therapy may be administered. Second-line therapies often consist of more chemotherapy, radiation, antibody drugs, tumor targeted small molecules or a combination of these. Third-line therapies can include bone marrow transplantation, antibody and small molecule targeted therapies and new technologies such as adoptive cell therapies.

Traditionally, novel therapeutics are developed and approved in late (third) line therapy of cancer patients. Such clinical programs carry risk of failure because patients are often quite frail, with effects of multiple rounds of prior therapy weakening bone marrow, immune systems and general fitness. Immunotherapy, such as checkpoint inhibitors, has generally been shown to be more effective when used in earlier lines of therapy, with prospect of very durable responses in some patients and there is a trend towards earlier use of these agents, avoiding in particular cytotoxic chemotherapy agents which carry substantial toxicity and very little prospect of long-term responses. Tumor-specific immunotherapy product candidates such as GRANITE-001, as well as "off-the-shelf" product candidates such as SLATE-001, are expected to be developed in combination with checkpoint inhibitors and can, in principle, be safely used in early lines of therapy. Our clinical development program will thus aim to study our products in early lines of cancer treatment, which carry a higher safety bar, and often a greater expectation of efficacy over control arms. Such studies may thus be relatively large and slow to achieve maturity. There are new tools available to stratify cancer patients for risk of recurrence or progression, such as liquid biopsies that measure the amount of circulating tumor-derived DNA. We will utilize these tools to attempt to expedite clinical trials in early-stage cancer patients by focusing upon patients at above-average risk of disease recurrence or progression, which events are typical endpoints in clinical trials. The development of liquid biopsies is at an early stage, however, and these tools may prove to carry low utility and thus render early-stage cancer trials slow, necessarily large and expensive. The safety of our product candidates in combination with checkpoint inhibitors in early lines of therapy may also prove to be unacceptable.

We expect to seek approval of our product candidates both as late-line therapy where appropriate, but also as a first line therapy wherever possible and potentially as a second-line therapy. There is no guarantee that our product candidates, even if approved in late-line therapy, would be approved for second-line or first-line therapy. In addition, we may have to conduct additional clinical trials prior to gaining approval for second-line or first-line therapy.

GRANITE-001 will initially take approximately 16-20 weeks to be manufactured and released for human use, and this long timeline demands that either patients are consented and entered into our trials when they start a prior line of therapy, and start our therapy upon disease progression, or we initiate treatment in patients who have entered the maintenance phase of their original line of treatment. For example, we might enroll newly diagnosed patients who are due to receive front-line chemotherapy and then start their therapy with our immunotherapy product candidate as second-line treatment when they progress upon front-line chemotherapy or fail to tolerate it. This carries the risk of time delays or drop-out, i.e. patients may not progress after first-line chemotherapy for a long time, or they may decide not to receive an immunotherapy product candidate we have manufactured for them, at our expense. Alternatively we may treat first-line patients once they have completed their initial treatment and have not progressed (called maintenance therapy)—this renders efficacy harder to interpret versus simple treatment studies (any objective response cannot clearly be attributed to our products) and may be complicated by standard of care treatments which may necessarily be continued alongside our immunotherapy candidates, further confounding interpretation of efficacy.

Our projections of both the number of people who have the cancers we are targeting, as well as the subset of people with these cancers in a position to receive third-line therapy and who have the potential to benefit from treatment with our product candidates, are based on our beliefs and estimates. These estimates have been derived from a variety of sources, including scientific literature, surveys of clinics, patient foundations, and market research and may prove to be incorrect. Regulatory authorities also may establish narrower definitions around when a patient is ineligible for other treatments than we have used in our projections, and that would reduce the size of the patient population eligible for our product candidates. Further, new studies may change the estimated incidence or prevalence of these cancers. The number of patients may turn out to be lower than expected. Additionally, the potentially addressable patient population for our product candidates may be limited or may not be amenable to

treatment with our product candidates. For instance, we anticipate that only a fraction of colorectal cancer patients will be predicted to have a high enough probability of TSNA presence to merit their inclusion into our program. Even if we obtain significant market share for our product candidates, because the potential target populations are small, we may never achieve profitability without obtaining regulatory approval for additional indications, including use as a first-line or second-line therapy.

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

We are committed to developing personalized cancer immunotherapies to fight multiple cancer types and are currently advancing multiple product candidates to address a variety of cancers, including metastatic NSCLC and colorectal, gastroesophageal and bladder cancers. Utilizing our EDGE platform, we believe we can develop multiple therapeutic classes of products that will generate a T cell immune response unleashing the natural power of the immune system on the tumor cells. However, one or more of these alternative therapeutic products may never be successfully validated in a human. In addition, identifying, developing, obtaining regulatory approval for and commercializing therapies for the treatment of cancer will require substantial additional funding beyond the net proceeds of this offering and is prone to the risks of failure inherent in therapeutic product development. Research programs to identify product candidates also require substantial technical, financial and human resources, regardless of whether or not any product candidates are ultimately identified, and even if our research programs initially show promise in identifying potential product candidates, they may fail to yield product candidates for clinical development.

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

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

The timely completion of clinical trials 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 trials 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 trial investigators with the appropriate competencies and experience;
- clinicians' and patients' perceptions as to the potential advantages of the product candidate being studied in relation to other available therapies, including any new therapies that may be approved for the indications we are investigating; and
- our ability to obtain and maintain patient consents.

In addition, our clinical trials may compete with other clinical trials for product candidates that are in the same therapeutic areas as our product candidates, and this competition will reduce the number and types of patients available to us, because some patients who might have opted to enroll in our trials may instead opt to enroll in a trial being conducted by one of our competitors. Since the number of qualified clinical investigators is limited, we may conduct some of our clinical trials at the same clinical trial sites that some of our competitors use, which will reduce the number of patients who are available for our clinical trials in such clinical trial site.

Further, the targeting of TSNA may result in unforeseen events, including harming healthy tissues in humans. As a result, it is possible that safety concerns could negatively affect patient enrollment among the patient populations that we intend to treat. Delays in patient enrollment may result in increased costs or may affect the timing or outcome of the planned clinical trials, which could prevent completion of these trials and adversely affect our ability to advance the development of our product candidates.

Our tumor-specific immunotherapy product 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.

As with most biological products, use of our product candidates could be associated with side effects or adverse events which can vary in severity from minor reactions to death and in frequency from infrequent to prevalent. Undesirable side effects or unacceptable toxicities caused by our product candidates could cause us or regulatory authorities to interrupt, delay or halt clinical trials and could result in a more restrictive label or the delay or denial of regulatory approval by the FDA or comparable foreign regulatory authorities. While we have not yet initiated clinical trials for GRANITE-001, it is likely that there will be side effects associated with its use. Results of our trials could reveal a high and unacceptable severity and prevalence of these or other side effects.

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

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

If any of our product candidates receives marketing approval and we or others later identify undesirable 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;
- 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 product candidate, if approved, and result in the loss of significant revenues to us, which would materially and adversely affect our results of operations and business. In addition, if one or more of our product candidates or our TSNA-directed immunotherapy approach generally prove to be unsafe, our entire technology 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 one of our tumor-specific immunotherapy product candidates obtains regulatory approval, they may fail to achieve the broad degree of physician and patient adoption and use necessary for commercial success.

Even if one of our tumor-specific immunotherapy product candidates receives FDA or other regulatory approvals, the commercial success of any of our current or future product candidates will depend significantly on the broad adoption and use of the resulting product by physicians and patients for approved indications. For a variety of reasons, including among other things, competitive factors, pricing or physician preference, reimbursement by insurers, the degree and rate of physician and patient adoption of our current or future product candidates, if approved, will depend on a number of factors, including:

- the clinical indications for which the product is approved and patient demand for approved products that treat those indications;
- the safety and efficacy of our product as compared to other available therapies;
- the time required for manufacture and release of our personalized immunotherapy products;
- the availability of coverage and adequate reimbursement from managed care plans, private insurers, government payors (such as Medicare and Medicaid) and other third-party payors for any of our product candidates that may be approved;
- acceptance by physicians, operators of hospitals and 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 for a particular indication;

- proper training and administration of our product candidates by physicians and medical staff;
- patient satisfaction with the results and administration of our product candidates and overall treatment experience, including, for example, the convenience of any dosing regimen;
- the cost of treatment with our product candidates in relation to alternative treatments and reimbursement levels, if any, and willingness to pay for the product, if approved, on the part of insurance companies and other third-party payers, physicians and patients;
- the prevalence and severity of side effects;
- limitations or warnings contained in the FDA-approved labeling for our products;
- the willingness of physicians, operators of hospitals and clinics and patients to utilize or adopt our products as a solution;
- any FDA requirement for a REMS;
- the effectiveness of our sales, marketing and distribution efforts;
- adverse publicity about our products or favorable publicity about competitive products; and
- potential product liability claims.

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

We currently manufacture a portion of our initial product candidate internally and rely on qualified third parties to supply components of our initial product candidate. Our inability to manufacture sufficient quantities of GRANITE-001 or any future product candidates, or the loss of our third-party suppliers, or our or their failure to comply with applicable regulatory requirements or to supply sufficient quantities at acceptable quality levels or prices, or at all, would materially and adversely affect our business.

Manufacturing is a vital component of our tumor-specific immunotherapy approach and we have invested significantly in our manufacturing facility. To ensure timely and consistent product supply assurance to our patients we currently use a hybrid product supply approach whereby certain elements of our initial product candidate are manufactured internally at our manufacturing facilities in Pleasanton, California, and other elements are manufactured at qualified third-party contract manufacturing organizations, or CMOs. All internal and third party contract manufacturing is performed under cGMP guidelines. In the future, we plan to internalize a majority of the manufacturing steps in the supply chain to optimize cost and production time, as well as establish full control over intellectual property and product quality. To do so, we will need to scale up our manufacturing operations, as we do not currently have the infrastructure or capability internally to manufacture all supplies needed for our product candidates or the materials necessary to produce our product candidates for use in the conduct of our preclinical studies or clinical trials, and we currently lack the internal resources and the capability to manufacture certain elements of our product candidates on a clinical scale. Accordingly, we will be required to make significant investments in our manufacturing facility and processing in the future, and our efforts to scale our manufacturing operations may not succeed.

In addition, our facilities and the facilities used by our CMOs to manufacture our product candidates are subject to various regulatory requirements and may be subject to the inspection of the FDA or other regulatory authorities. We do not control the manufacturing process at our CMOs, and are completely dependent on them for compliance with current regulatory requirements. If we or our

CMOs 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 our or their manufacturing facilities for the manufacture of elements of our product candidates. In addition, we have limited control over the ability of our CMOs to maintain adequate quality control, quality assurance and qualified personnel. If the FDA or a comparable foreign regulatory authority finds our facilities or those of our CMOs inadequate for the manufacture of our product candidates or if such facilities are subject to enforcement action in the future or are otherwise inadequate, we may need to find alternative manufacturing facilities, which would significantly impact our ability to develop, obtain regulatory approval for or market our product candidates.

Additionally, we and our CMOs may experience manufacturing difficulties due to resource constraints or as a result of labor disputes or unstable political environments. If we or our CMOs were to encounter any of these difficulties, our ability to provide our product candidate to patients in clinical trials, or to provide product for the treatment of patients once approved, would be jeopardized.

Our tumor-specific product candidates are biologics with complex and time-consuming manufacturing processes and we may encounter difficulties in production, particularly with respect to process development or scaling-out of our manufacturing capabilities. If we or any of our third-party manufacturers encounter such difficulties, our ability to provide supply of our product candidates for clinical trials or our products for patients, if approved, could be delayed or stopped, or we may be unable to maintain a commercially viable cost structure.

Our tumor-specific immunotherapy product candidate is considered to be a biologic and the manufacturing processes is complex, time-consuming, highly-regulated and subject to multiple risks. The manufacture of our product candidates involves extraction of genetic material from patient tumor samples, genetic manipulations at the gene sequence level, live cell culture operations, specialized formulations and aseptic fill finish operations. As a result of these complexities, the cost to manufacture biologics in general, and our personalized immunotherapy candidate, in particular, is generally higher than traditional small molecule chemical compounds, and the manufacturing process is less reliable and more difficult and time-consuming to reproduce. For example, the entire cGMP manufacturing process from biopsy receipt to the release and shipment of the personalized immunotherapy to the clinical site for patient administration will initially take approximately 16-20 weeks. In addition, our manufacturing process is in its early stages of development and will be susceptible to product loss or failure, or product variation that may adversely impact patient outcomes. Our supply chain may not function efficiently due to logistical issues associated with but not limited to the collection of a tumor biopsy from the patient, shipping such material to the manufacturing site, sequencing the biopsy specimen, manufacturing the immunotherapy components, shipping the final immunotherapy back to the patient, and injecting the patient with the immunotherapy. Manufacturing issues or different product characteristics resulting from process development activities or even minor deviations during normal manufacturing processes could result in reduced production yields, product defects and other supply disruptions. If for any reason we lose a patient's biopsy or an in-process product at any point in the process, the manufacturing process for that patient will need to be restarted and the resulting delay may adversely affect that patient's outcome. Because our product candidates are manufactured specifically for an individual patient, we will be required to maintain a chain of identity and chain of custody with respect to materials as they move from the patient to the manufacturing facility, through the manufacturing process, and back to the patient. Maintaining such a chain of identity and chain of custody is difficult and complex, and the failure to do so could result in adverse patient outcomes, loss of product or regulatory action including withdrawal of our products from the market, if licensed.

As part of our process development efforts, we also may make changes to our manufacturing processes at various points during development, for various reasons, such as controlling costs, achieving scale, decreasing processing time, increasing manufacturing success rate, or other reasons.

Such changes carry the risk that they will not achieve their intended objectives, and any of these changes could cause our product candidates to perform differently and affect the results of our ongoing clinical trials or future clinical trials. In some circumstances, changes in the manufacturing process may require us to perform *ex vivo* comparability studies and to collect additional data from patients prior to undertaking more advanced clinical trials. For instance, changes in our process during the course of clinical development may require us to show the comparability of the product used in earlier clinical phases or at earlier portions of a trial to the product used in later clinical phases or later portions of the trial.

Furthermore, if microbial, viral or other contaminations are discovered in our supply of our product candidates or in our manufacturing facilities or those of our CMOs, such manufacturing facilities may need to be closed for an extended period of time to investigate and remedy the contamination. We cannot assure you that any such contaminations or stability failures or other issues relating to the manufacture of our product candidates will not occur in the future.

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

We rely on third-party suppliers for certain materials required for the production of our personalized immunotherapy candidate. Our dependence on these third-party suppliers and the challenges we may face in obtaining adequate supplies of 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 that 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 product 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 product candidates, including limiting supplies necessary for clinical trials 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 trials. If these third parties do not successfully carry out their contractual duties, fail to comply with applicable regulatory requirements or meet expected deadlines, we may be unable to obtain regulatory approval for our tumor-specific immunotherapy product 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 trials. 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 trials, in order to ensure that the data and results are scientifically credible and accurate and that the trial subjects are adequately informed of the potential risks of participating in clinical trials. We rely on medical institutions, clinical investigators, contract laboratories and other third parties, such as CROs, to conduct GLP-compliant preclinical studies and GCP-compliant clinical trials on our product candidates properly and on time. While we have agreements governing their activities, we control only certain aspects of their activities and have limited influence over their actual performance. The third parties with whom we contract for execution of our

GLP-compliant preclinical studies and our GCP-compliant clinical trials play a significant role in the conduct of these studies and 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 trials, we remain responsible for ensuring that each of our preclinical studies and clinical trials is conducted in accordance with its investigational plan and protocol and applicable laws and regulations, and our reliance on the CROs does not relieve us of our regulatory responsibilities.

Many of the third parties with whom we contract may also have relationships with other commercial entities, including our competitors, for whom they may also be conducting clinical trials or other drug development activities that could harm our competitive position. Further, under certain circumstances, these third parties may terminate their agreements with us upon as little as 10 days' prior written notice. Some of these agreements may also be terminated by such third parties under certain other circumstances, including our insolvency. If the third parties conducting our preclinical studies or our clinical trials do not adequately perform their contractual duties or obligations, experience significant business challenges, disruptions or failures, do not meet expected deadlines, terminate their agreements with us or need to be replaced, or if the quality or accuracy of the data they obtain is compromised due to their failure to adhere to our protocols or to GLPs/GCPs, or for any other reason, we may need to enter into new arrangements with alternative third parties. This could be difficult, costly or impossible, and our preclinical studies or clinical trials may need to be extended, delayed, terminated or repeated. As a result, we may not be able to obtain regulatory approval in a timely fashion, or at all, for the applicable product candidate, our financial results and the commercial prospects for our product candidates would be harmed, our costs could increase, and our ability to generate revenues could be delayed.

We face significant competition in an environment of rapid technological and scientific change, and we 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. We compete with a variety of multinational biopharmaceutical companies and specialized biotechnology companies, as well as technology being developed at universities and other research institutions. Our competitors have developed, are developing or will develop product candidates and processes competitive with our product candidates. Competitive therapeutic treatments include those that have already been approved and accepted by the medical community and any new treatments that enter the market. We believe that a significant number of product candidates are currently under development, and may become commercially available in the future, for the treatment of diseases and other conditions for which we may try to develop product candidates. There is intense and rapidly evolving competition in the biotechnology, biopharmaceutical and antibody and immunoregulatory therapeutics fields. We believe that while our discovery platform, its associated intellectual property and our scientific and technical know-how give us a competitive advantage in this space, competition from many sources remains. Our competitors include larger and better funded biopharmaceutical, biotechnological and therapeutics companies. Moreover, we also compete with current and future therapeutics developed at universities and other research institutions.

Our success will partially depend on our ability to develop and protect therapeutics that are safer and more effective than competing products. Our commercial opportunity and success will be reduced or eliminated if competing products that are safer, more effective, or less expensive than the therapeutics we develop.

If either of GRANITE-001 or SLATE-001 is approved, it will compete with a range of therapeutic treatments that are either in development or currently marketed. Indeed, a variety of oncology drugs and therapeutic biologics are on the market or in clinical development. Such marketed therapies range from immune checkpoint inhibitors such as Bristol-Myers Squibb Company's OPDIVO and YERVOY, Merck & Co., Inc.'s KEYTRUDA and Genentech, Inc.'s TECENTRIQ, and T cell engager immunotherapies such as Amgen, Inc.'s BLINCYTO. The most common therapeutic treatments for common solid tumors are chemotherapeutic compounds, radiation therapy, targeted therapies and now immunotherapies.

In addition, numerous compounds are in clinical development for cancer treatment. The clinical development pipeline for cancer includes small molecules, antibodies and immunotherapies from a variety of groups, including in the neoantigen space, the bispecific antibody space and engineered cell therapy and TCR space. Many of these companies are well-capitalized and, in contrast to us, have significant clinical experience.

Many of our competitors have significantly greater financial, technical, manufacturing, marketing, sales and supply resources or experience than we do. If we successfully obtain approval for any product candidate, we will face competition based on many different factors, including the safety and effectiveness of our products, the ease with which our products can be administered and the extent to which patients accept relatively new routes of administration, the timing and scope of regulatory approvals for these products, the availability and cost of manufacturing, marketing and sales capabilities, price, reimbursement coverage and patent position. Competing products could present superior treatment alternatives, including by being more effective, safer, less expensive or marketed and sold more effectively than any products we may develop. Competitive products may make any products we develop obsolete or noncompetitive before we recover the expense of developing and commercializing our product candidates. Such competitors could also recruit our employees, which could negatively impact our level of expertise and our ability to execute our business plan. For additional information regarding our competition, see the section of this prospectus captioned "Business—Competition."

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

The availability of coverage and adequacy of reimbursement by managed care plans, 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 medical services and pharmaceutical products such as our product candidates that receive FDA approval. Our ability to achieve acceptable levels of coverage and reimbursement for our products or procedures using our products by third-party payors will have an effect on our ability to successfully commercialize our product candidates. Obtaining coverage and adequate reimbursement for our products may be particularly difficult because of the higher prices often associated with drugs administered under the supervision of a physician. Separate reimbursement for the product itself or the treatment or procedure in which our product is used may not be available. A decision by a third-party payor not to cover or separately reimburse for our products or procedures using our products, could reduce physician utilization of our products once approved. Assuming there is coverage for our product candidates, or procedures using our product candidates by a third-party payor, the resulting reimbursement payment rates may not be adequate or may require co-payments that patients find unacceptably high. We cannot be sure that coverage and reimbursement in the United States, the European Union or

elsewhere will be available for our product candidates or procedures using our product candidates, or any product that we may develop, and any reimbursement that may become available may not be adequate or 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 product candidates as substitutable and only offer to reimburse patients for the less expensive product. Even if we show improved efficacy or improved convenience of administration with our product candidates, pricing of existing third-party therapeutics may limit the amount we will be able to charge for our product candidates. These third-party payors may deny or revoke the reimbursement status of our product candidates, if approved, or establish prices for our product candidates at levels that are too low to enable us to realize an appropriate return on our investment. If reimbursement is not available or is available only at limited levels, we may not be able to successfully commercialize our product candidates, and may not be able to obtain a satisfactory financial return on our product candidates.

There is significant uncertainty related to the insurance coverage and reimbursement of newly-approved products, especially novel products like our immunotherapy product candidates. No regulatory authority has granted approval for a tumor-specific cancer immunotherapy based on a vaccine approach, and there is no model for reimbursement of this type of product. The Medicare and Medicaid programs increasingly are used as models in the United States for how private payors and other governmental payors develop their coverage and reimbursement policies for drugs and biologics. Some third-party payors may require pre-approval of coverage for new or innovative devices or drug therapies before they will reimburse healthcare providers who use such therapies. We cannot predict at this time what third-party payors will decide with respect to the coverage and reimbursement for our product candidates.

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

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

Moreover, increasing efforts by governmental and third-party payors in the United States and abroad to cap or reduce healthcare costs may cause such organizations to limit both coverage and the level of reimbursement for newly approved products and, as a result, they may not cover or provide adequate payment for our product candidates. We expect to experience pricing pressures in

connection with the sale of our product candidates due to the trend toward managed health care, the increasing influence of health maintenance organizations and additional legislative changes. The downward pressure on healthcare costs in general, particularly prescription drugs and biologics and surgical procedures and other treatments, has become intense. As a result, increasingly high barriers are being erected to the entry of new products.

If we are unable to support demand for our existing or future services, including ensuring that we have adequate capacity to meet increased demand, or we are unable to successfully manage the evolution of our EDGE platform, our business could suffer.

As the demand for our personalized immunotherapy candidate increases with our clinical trial needs, we will need to continue to increase our workflow capacity for sample intake and general process improvements, expand our internal quality assurance program, and extend our EDGE platform based on additional tumor data collected from our clinical trials at a larger scale within expected turnaround times. We will need additional certified laboratory scientists and technicians and other scientific and technical personnel to process higher volumes of tumor biopsies. Portions of our process are not automated and will require additional personnel to scale. We will also need to purchase additional equipment, some of which can take several months or more to procure, set up, and validate, and increase our software and computing capacity to meet increased volume. There is no assurance that any of these increases in scale, expansion of personnel, equipment, software and computing capacities, or process enhancements will be successfully implemented, or that we will have adequate space in our laboratory facilities to accommodate such required expansion.

As we progress into clinical development and expand our manufacturing capabilities, we will need to incorporate new equipment, implement new technology systems and laboratory processes, and hire new personnel with different qualifications. Failure to manage this growth or transition could result in turnaround time delays, higher service costs, declining service quality, deteriorating customer service, and slower responses to competitive challenges. A failure in any one of these areas could make it difficult for us to meet market expectations for our services, and could damage our reputation and the prospects for our business.

We currently have no sales organization. If we are unable to establish sales capabilities on our own or through third parties, we may not be able to market and sell our product candidates 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 product candidates, if approved, in the United States and foreign jurisdictions, we must build our marketing, sales, distribution, managerial and other non-technical capabilities or make arrangements with third parties to perform these services, and we may not be successful in doing so. If any of our product candidates receive regulatory approval, we expect to establish a sales organization with technical expertise and supporting distribution capabilities to commercialize each such product candidate, which will be expensive and time consuming. We have no prior experience in the marketing, sale and distribution of pharmaceutical products and there are significant risks involved in building and managing a sales organization, including our ability to hire, retain, and incentivize qualified individuals, generate sufficient sales leads, provide adequate training to sales and marketing personnel, and effectively manage a geographically dispersed sales and marketing team. Any failure or delay in the development of our internal sales, marketing and distribution capabilities would adversely impact the commercialization of these products. We may choose to collaborate with third parties that have direct sales forces and established distribution systems, either to augment our own sales force and distribution systems or in lieu of our own sales force and distribution systems. If we are unable to enter into such arrangements on acceptable terms or at all, we may not be able to successfully

commercialize our product candidates. If we are not successful in commercializing our product candidates or any future product candidates, either on our own or through arrangements with one or more third parties, we may not be able to generate any future product revenue and we would incur significant additional losses.

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

As of August 31, 2018, we had 100 full-time employees. We will need to continue to expand our managerial, operational, finance and other resources in order to manage our operations and clinical trials, continue our development activities and commercialize our lead product candidate or any future product candidates. Our management and personnel, systems and facilities currently in place may not be adequate to support this future growth. Our need to effectively execute our growth strategy requires that we:

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

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

Our success depends in part on our continued ability to attract, retain and motivate highly qualified management, clinical and scientific personnel. We are highly dependent upon our senior management, particularly our President and Chief Executive Officer, 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 products, initiation or completion of our planned clinical trials or the commercialization of our lead product candidate or any future product candidates.

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

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

We face an inherent risk of product liability as a result of the planned clinical testing of our product candidates and will face an even greater risk if we commercialize any products. For example, we may be sued if any product we develop allegedly causes injury or is found to be otherwise unsuitable during product testing, manufacturing, marketing or sale. Any such product liability claims may include allegations of defects in manufacturing, defects in design, a failure to warn of dangers inherent in the product, negligence, strict liability, and 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 product candidates. Even successful defense would require significant financial and management resources. Regardless of the merits or eventual outcome, liability claims may result in:

- decreased demand for our current or future product candidates;
- injury to our reputation;
- withdrawal of clinical trial participants;
- costs to defend the related litigation;
- 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 product 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 product candidates we develop. We currently carry product liability insurance covering our clinical trials in the amount of $10.0 million in the aggregate. Although we maintain such insurance, any claim that may be brought against us could result in a court judgment or settlement in an amount that is not covered, in whole or in part, by our insurance or that is in excess of the limits of our insurance coverage. Our insurance policies also have various exclusions and deductibles, and we may be subject to a product liability claim for which we have no coverage. We will have to pay any amounts awarded by a court or negotiated in a settlement that exceed our coverage limitations or that are not covered by our insurance, and we may not have, or be able to obtain, sufficient funds to pay such amounts. Moreover, in the future, we may not be able to maintain insurance coverage at a reasonable cost or in sufficient amounts to protect us against losses. If and when we obtain approval for marketing any of our product candidates, we intend to expand our insurance coverage to include the sale of such product candidate; however, we may be unable to obtain this liability insurance on commercially reasonable terms or at all.

Our strategic collaboration with bluebird bio, or any future collaboration arrangements that we may enter into, may not be successful, which could significantly limit the likelihood of receiving the potential economic benefits of the collaboration and adversely affect our ability to develop and commercialize our product candidates.

In August 2018, we entered into a strategic collaboration with bluebird bio to utilize our EDGE platform to identify and validate tumor-specific targets and provide TCRs directed to ten selected targets for use in bluebird bio's cell therapy products. Under the collaboration, we are entitled to receive up to an aggregate of $1.2 billion in development, regulatory and commercial milestones and tiered single digit royalties on sales of bluebird bio's cell therapy products utilizing the TCRs we develop directed at the targets we discovered. In addition, in the future we may seek to enter into additional collaboration arrangements for the development or commercialization of certain of our product 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 collaboration agreements in the future, we may face significant competition in seeking appropriate collaborators. Moreover, any 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 with bluebird bio and we may never receive any milestone or royalty payments. Further, we may be unable to prudently manage our existing collaboration 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 product candidates or may elect not to continue or renew development or commercialization programs based on clinical trial results, changes in their strategic focus due to their acquisition of competitive products or their internal development of competitive products, availability of funding or other external factors, such as a business combination that diverts resources or creates competing priorities;
- collaborators may delay clinical trials, provide insufficient funding for a clinical trial program, stop a clinical trial, abandon a product candidate, repeat or conduct new clinical trials or require a new formulation of a product candidate for clinical testing;
- collaborators could independently develop, or develop with third parties, products that compete directly or indirectly with our products or product candidates;
- 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 causes the delay or termination of the research, development or commercialization of our current or future product candidates or that results in costly litigation or arbitration that diverts management attention and resources;
- collaborations may be terminated, and, if terminated, this may result in a need for additional capital to pursue further development or commercialization of the applicable current or future product candidates;
- collaborators may own or co-own intellectual property covering products that result from our collaboration 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.

If we engage in future acquisitions or strategic partnerships, this may increase our capital requirements, dilute our stockholders, cause us to incur debt or assume contingent liabilities, and subject us to other risks.

We may evaluate various acquisitions and strategic partnerships, including licensing or acquiring complementary products, intellectual property rights, technologies, or businesses. Any potential acquisition or strategic partnership may entail numerous risks, including:

- increased operating expenses and cash requirements;
- the assumption of additional indebtedness or contingent liabilities;
- the issuance of our equity securities;
- assimilation of operations, intellectual property and products of an acquired company, including difficulties associated with integrating new personnel;
- the diversion of our management's attention from our existing product programs and initiatives in pursuing such a strategic merger or acquisition;
- retention of key employees, the loss of key personnel, and uncertainties in our ability to maintain key business relationships;
- risks and uncertainties associated with the other party to such a transaction, including the prospects of that party and their existing products or product candidates and regulatory approvals; and
- our inability to generate revenue from acquired technology and/or products sufficient to meet our objectives in undertaking the acquisition or even to offset the associated acquisition and maintenance costs.

In addition, if we undertake acquisitions, we may issue dilutive securities, assume or incur debt obligations, incur large one-time expenses and acquire intangible assets that could result in significant future amortization expense. Moreover, we may not be able to locate suitable acquisition opportunities and this inability could impair our ability to grow or obtain access to technology or products that may be important to the development of 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 certain of our other facilities, including our manufacturing facility, 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 or other facilities, 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.

We depend on our information technology systems, and any failure of these systems could harm our business. Security breaches, loss of data, and other disruptions could compromise sensitive information related to our business or prevent us from accessing critical information and expose us to liability, which could 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, including our laboratory information management system and our EDGE platform. 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 or data loss, 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 trial data from completed or ongoing or planned clinical trials could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. 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, or HIPAA, as amended by the Health Information Technology for Clinical Health Act of 2009, or HITECH, 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 trials, the creation of fraudulent data in our preclinical studies or clinical trials, or illegal misappropriation of product, which could result in regulatory sanctions and cause serious harm to our reputation. It is not always possible to identify and deter misconduct by employees and other third-parties, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to 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, disgorgement, possible exclusion from participation in Medicare, Medicaid and other U.S. federal healthcare programs or healthcare programs in other jurisdictions, integrity oversight and reporting obligations to resolve allegations of non-compliance, 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 product 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 trials or regulatory approvals could be suspended, which could have a material adverse effect on our business, results of operations and financial condition.

Risks Related to Intellectual Property

Our success depends on our ability to protect our intellectual property and our proprietary technologies.

Our commercial success depends in part on our ability to obtain and maintain patent protection and trade secret protection for our product candidates, proprietary technologies and their uses as well as our ability to operate without infringing upon the proprietary rights of others. We generally seek to protect our proprietary position by filing patent applications in the United States and abroad related to our product candidates, proprietary technologies and their uses that are important to our business. Our patent applications cannot be enforced against third parties practicing the technology claimed in such applications unless, and until, patents issues from such applications, and then only to the extent the issued claims cover the technology. There can be no assurance that our patent applications or those of our licensors will result in additional patents being issued or that issued patents will afford sufficient protection against competitors with similar technology, nor can there be any assurance that the patents issued will not be infringed, designed around or invalidated by third parties. Even issued patents may later be found invalid or unenforceable or may be modified or revoked in proceedings instituted by third parties before various patent offices or in courts. The degree of future protection for our proprietary rights is uncertain. Only limited protection may be available and may not adequately protect our rights or permit us to gain or keep any competitive advantage. If we do not adequately protect our intellectual property and proprietary technology, competitors may be able to use our product candidates and proprietary technologies and erode or negate any competitive advantage we may have, which could have a material adverse effect on our financial condition and results of operations.

We have applied, and we intend to continue applying, for patents covering aspects of our product candidates, proprietary technologies and their uses that we deem appropriate. However, we may not be able to apply for patents on certain aspects of our current or future product candidates, proprietary

technologies and their uses in a timely fashion, at a reasonable cost, in all jurisdictions, or at all, and any potential patent coverage we obtain may not be sufficient to prevent substantial competition. As of August 31, 2018, our solely owned patent portfolio includes 19 pending U.S. patent applications and 28 pending foreign patent applications and one issued U.S. patent relating to the use of a predictive model to identify neoantigens, particularly where the predictive model was trained using mass spectrometry data. We cannot be certain that the claims in any of our patent applications will be considered patentable by the United States Patent and Trademark Office, or USPTO, courts in the United States or by the patent offices and courts in foreign countries, nor can we be certain that the claims in our issued patents will not be found invalid or unenforceable if challenged.

The patent application process is subject to numerous risks and uncertainties, and there can be no assurance that we or any of our actual or potential future collaborators will be successful in protecting our product candidates, proprietary technologies and their uses by obtaining and defending patents. These risks and uncertainties include the following:

- the USPTO and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other provisions during the patent process, the noncompliance with which can result in abandonment or lapse of a patent or patent application, and partial or complete loss of patent rights in the relevant jurisdiction;
- patent applications may not result in any patents being issued;
- patents that may be issued or in-licensed may be challenged, invalidated, modified, revoked, circumvented, found to be unenforceable or otherwise may not provide any competitive advantage;
- our competitors, many of whom have substantially greater resources than we do and many of whom have made significant investments in competing technologies, may seek or may have already obtained patents that will limit, interfere with or eliminate our ability to make, use and sell our potential product candidates;
- other parties may have designed around our claims or developed technologies that may be related or competitive to our platform, may have filed or may file patent applications and may have received or may receive patents that overlap or conflict with our patent applications, either by claiming the same methods or devices or by claiming subject matter that could dominate our patent position;
- any successful opposition to any patents owned by or licensed to us could deprive us of rights necessary for the practice of our technologies or the successful commercialization of any products or product candidates that we may develop;
- because patent applications in the United States and most other countries are confidential for a period of time after filing, we cannot be certain that we or our licensors were the first to file any patent application related to our product candidates, proprietary technologies and their uses;
- an interference proceeding can be provoked by a third party or instituted by the USPTO to determine who was the first to invent any of the subject matter covered by the patent claims of our applications for any application with an effective filing date before March 16, 2013;
- there may be significant pressure on the U.S. government and international governmental bodies to limit the scope of patent protection both inside and outside the United States for disease treatments that prove successful, as a matter of public policy regarding worldwide health concerns; and
- countries other than the United States may have patent laws less favorable to patentees than those upheld by U.S. courts, allowing foreign competitors a better opportunity to create, develop and market competing product candidates.

The patent position of biopharmaceutical companies generally is highly uncertain, involves complex legal and factual questions, and has been the subject of much litigation in recent years. Moreover, the patent prosecution process is also expensive and time-consuming, and we may not be able to file and prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner. It is also possible that we will fail to identify patentable aspects of our research and development output before it is too late to obtain patent protection. Although we enter into non-disclosure and confidentiality agreements with parties who have access to patentable aspects of our research and development output, such as our employees, corporate collaborators, outside scientific collaborators, CROs, contract manufacturers, consultants, advisors and other third parties, any of these parties may breach such agreements and disclose such output before a patent application is filed, thereby jeopardizing our ability to seek patent protection.

The issuance of a patent is not conclusive as to its inventorship, scope, validity or enforceability, and our patents, if issued, or the patent rights that we license from others, may be challenged in the courts or patent offices in the United States and abroad. Once granted, patents may remain open to opposition, interference, re-examination, post-grant review, *inter partes* review, nullification or derivation action in court or before patent offices or similar proceedings for a given period after allowance or grant, during which time third parties can raise objections against such initial grant. Such challenges may result in loss of exclusivity or in patent claims being narrowed, invalidated or held unenforceable, which could limit our ability to stop others from using or commercializing similar or identical products, or limit the duration of the patent protection of our products and product candidates. Given the amount of time required for the development, testing and regulatory review of new product candidates, patents protecting such candidates might expire before or shortly after such candidates are commercialized. As a result, our intellectual property may not provide us with sufficient rights to exclude others from commercializing products similar or identical to ours.

Our ability to enforce our patent rights depends on our ability to detect infringement. It may be difficult to detect infringers who do not advertise the components or methods that are used in connection with their products and services. Moreover, it may be difficult or impossible to obtain evidence of infringement in a competitor's or potential competitor's product or service. We may not prevail in any lawsuits that we initiate and the damages or other remedies awarded if we were to prevail may not be commercially meaningful.

In addition, proceedings to enforce or defend our patents could put our patents at risk of being invalidated, held unenforceable or interpreted narrowly. Such proceedings could also provoke third parties to assert claims against us, including that some or all of the claims in one or more of our patents are invalid or otherwise unenforceable. If any of our patents covering our products are invalidated or found unenforceable, or if a court found that valid, enforceable patents held by third parties covered one or more of our products, our competitive position could be harmed or we could be required to incur significant expenses to enforce or defend our rights. If we initiate lawsuits to protect or enforce our patents, or litigate against third party claims, such proceedings would be expensive and would divert the attention of our management and technical personnel.

The degree of future protection for our proprietary rights is uncertain, and we cannot ensure that:

- any of our patents, or any of our pending patent applications, if issued, or those of our licensors, will include claims having a scope sufficient to protect our products;
- any of our pending patent applications or those of our licensors may issue as patents;
- others will not or may not be able to make, use, offer to sell, or sell products that are the same as or similar to our own but that are not covered by the claims of the patents that we own or license;

- we will be able to successfully commercialize our products on a substantial scale, if approved, before the relevant patents that we own or license expire;
- we were the first to make the inventions covered by each of the patents and pending patent applications that we own or license;
- we or our licensors were the first to file patent applications for these inventions;
- others will not develop similar or alternative technologies that do not infringe the patents we own or license;
- any of the patents we own or license will be found to ultimately be valid and enforceable;
- any patents issued to us or our licensors will provide a basis for an exclusive market for our commercially viable products or will provide us with any competitive advantages;
- a third party may not challenge the patents we own or license and, if challenged, a court would hold that such patents are valid, enforceable and infringed;
- we may develop or in-license additional proprietary technologies that are patentable;
- the patents of others will not have an adverse effect on our business;
- our competitors do not conduct research and development activities in countries where we do not have enforceable patent rights and then use the information learned from such activities to develop competitive products for sale in our major commercial markets;
- we will develop additional proprietary technologies or products that are separately patentable; or
- our commercial activities or products will not infringe upon the patents of others.

Where we obtain licenses from or collaborate with third parties, in some circumstances, we may not have the right to control the preparation, filing and prosecution of patent applications, or to maintain the patents, covering technology that we license from third parties, or such activities, if controlled by us, may require the input of such third parties. We may also require the cooperation of our licensors and collaborators to enforce any licensed patent rights, and such cooperation may not be provided. Therefore, these patents and applications may not be prosecuted and enforced in a manner consistent with the best interests of our business. Moreover, if we do obtain necessary licenses, we will likely have obligations under those licenses, and any failure to satisfy those obligations could give our licensor the right to terminate the license. Termination of a necessary license, or expiration of licensed patents or patent applications, could have a material adverse impact on our business.

The lives of our patents may not be sufficient to effectively protect our products and business.

Patents have a limited lifespan. In the United States, the natural expiration of a patent is generally 20 years after its first effective non-provisional filing date. Although various extensions may be available, the life of a patent, and the protection it affords, is limited. Even if patents covering our product candidates, proprietary technologies and their uses are obtained, once the patent life has expired, we may be open to competition. In addition, although upon issuance in the United States a patent's life can be increased based on certain delays caused by the USPTO, this increase can be reduced or eliminated based on certain delays caused by the patent applicant during patent prosecution. Given the amount of time required for the development, testing and regulatory review of new product candidates, patents protecting such candidates might expire before or shortly after such candidates are commercialized. If we do not have sufficient patent life to protect our product candidates, proprietary technologies and their uses, our business and results of operations will be adversely affected.

If we are unable to protect the confidentiality of our trade secrets, our business and competitive position would be harmed.

We rely on the protection of our trade secrets, including unpatented know-how, technology and other proprietary information. We have taken steps to protect our trade secrets and unpatented know-how, including entering into confidentiality agreements with third parties, and confidential information and inventions agreements with employees, consultants and advisors. In addition to contractual measures, we try to protect the confidential nature of our proprietary information using commonly accepted physical and technological security measures. Despite these efforts, we cannot provide any assurances that all such agreements have been duly executed, and any of these parties may breach the agreements and disclose our proprietary information, including our trade secrets, and we may not be able to obtain adequate remedies for such breaches. In addition, such security measures may not provide adequate protection for our proprietary information, for example, in the case of misappropriation of a trade secret by an employee, consultant, customer or third party with authorized access. Our security measures may not prevent an employee, consultant or customer from misappropriating our trade secrets and providing them to a competitor, and recourse we take against such misconduct may not provide an adequate remedy to protect our interests fully. Monitoring unauthorized uses and disclosures is difficult, and we do not know whether the steps we have taken to protect our proprietary technologies will be effective. Unauthorized parties may also attempt to copy or reverse engineer certain aspects of our products that we consider proprietary. Enforcing a claim that a party illegally disclosed or misappropriated a trade secret can be difficult, expensive and time-consuming, and the outcome is unpredictable. Even though we use commonly accepted security measures, the criteria for protection of trade secrets can vary among different jurisdictions.

Enforcing a claim that a party illegally disclosed or misappropriated a trade secret is difficult, expensive and time-consuming, and the outcome is unpredictable. In addition, some courts inside and outside the United States are less willing or unwilling to protect trade secrets. Moreover, third parties may still obtain this information or may come upon this or similar information independently, and we would have no right to prevent them from using that technology or information to compete with us. Trade secrets will over time be disseminated within the industry through independent development, the publication of journal articles and the movement of personnel skilled in the art from company to company or academic to industry scientific positions. Though our agreements with third parties typically restrict the ability of our advisors, employees, collaborators, licensors, suppliers, third-party contractors and consultants to publish data potentially relating to our trade secrets, our agreements may contain certain limited publication rights. If any of our trade secrets were to be lawfully obtained or independently developed by a competitor, we would have no right to prevent such competitor from using that technology or information to compete with us, which could harm our competitive position. Because from time to time we expect to rely on third parties in the development, manufacture, and distribution of our products and provision of our services, we must, at times, share trade secrets with them. Despite employing the contractual and other security precautions described above, the need to share trade secrets increases the risk that such trade secrets become known by our competitors, are inadvertently incorporated into the technology of others, or are disclosed or used in violation of these agreements. If any of these events occurs or if we otherwise lose protection for our trade secrets, the value of this information may be greatly reduced and our competitive position would be harmed. If we do not apply for patent protection prior to such publication or if we cannot otherwise maintain the confidentiality of our proprietary technology and other confidential information, then our ability to obtain patent protection or to protect our trade secret information may be jeopardized.

Our rights to develop and commercialize our product candidates are subject in part to the terms and conditions of licenses granted to us by other companies. The patent protection, prosecution and enforcement for some of our product candidates may be dependent on third parties.

We currently are reliant upon licenses of certain patent rights and proprietary technology from third parties that is important or necessary to the development of our technology and products, including technology related to our product candidates. For example, we rely on our license agreement with Arbutus Biopharma Corporation for certain lipid nanoparticle-based delivery technologies. This and other licenses we may enter into in the future may not provide adequate rights to use such intellectual property and technology in all relevant fields of use or in all territories in which we may wish to develop or commercialize our technology and products in the future. As a result, we may not be able to develop and commercialize our technology and products in fields of use and territories for which we are not granted rights pursuant to such licenses.

Licenses to additional third-party technology that may be required for our development programs may not be available in the future or may not be available on commercially reasonable terms, which could have a material adverse effect on our business and financial condition.

In some circumstances, we may not have the right to control the preparation, filing, prosecution and enforcement of patent applications, or to maintain the patents, covering technology that we license from third parties. In addition, some of our agreements with our licensors require us to obtain consent from the licensor before we can enforce patent rights, and our licensor may withhold such consent or may not provide it on a timely basis. Therefore, we cannot be certain that our licensors or collaborators will prosecute, maintain, enforce and defend such intellectual property rights in a manner consistent with the best interests of our business, including by taking reasonable measures to protect the confidentiality of know-how and trade secrets, or by paying all applicable prosecution and maintenance fees related to intellectual property registrations for any of our product candidates. We also cannot be certain that our licensors have drafted or prosecuted the patents and patent applications licensed to us in compliance with applicable laws and regulations, which may affect the validity and enforceability of such patents or any patents that may issue from such applications. If they fail to do so, this could cause us to lose rights in any applicable intellectual property that we in-license, and as a result our ability to develop and commercialize products or product candidates may be adversely affected and we may be unable to prevent competitors from making, using and selling competing products.

Our current licenses, and our future licenses likely will, impose various royalty payments, milestones, and other obligations on us. If we fail to comply with any of these obligations, we may be required to pay damages and the licensor may have the right to terminate the license. Termination by the licensor would cause us to lose valuable rights, and could prevent us from developing and commercializing our product candidates and proprietary technologies. Our business would suffer if any current or future licenses terminate, if the licensors fail to abide by the terms of the license, if the licensors fail to enforce licensed patents against infringing third parties, if the licensed patents or other rights are found to be invalid or unenforceable, or if we are unable to enter into necessary licenses on acceptable terms. Furthermore, if any current or future licenses terminate, or if the underlying patents fail to provide the intended exclusivity, competitors or other third parties may gain the freedom to seek regulatory approval of, and to market, products identical to ours. Moreover, our licensors may own or control intellectual property that has not been licensed to us and, as a result, we may be subject to claims, regardless of their merit, that we are infringing or otherwise violating the licensor's rights. In addition, while we cannot currently determine the amount of the royalty obligations we would be required to pay on sales of future products, if any, the amounts may be significant. The amount of our future royalty obligations will depend on the technology and intellectual property we use in products that we successfully develop and commercialize, if any. Therefore, even if we successfully develop and commercialize products, we may be unable to achieve or maintain profitability.

Litigation or other proceedings or third-party claims of intellectual property infringement could require us to spend significant time and money and could prevent us from selling our products.

Our commercial success depends significantly on our ability to operate without infringing the patents and other proprietary rights of third parties. However, our research, development and commercialization activities may be subject to claims that we infringe or otherwise violate patents or other intellectual property rights owned or controlled by third parties. Claims by third parties that we infringe their proprietary rights may result in liability for damages or prevent or delay our developmental and commercialization efforts. We cannot assure you that our operations do not, or will not in the future, infringe existing or future patents.

Other entities may have or obtain patents or proprietary rights that could limit our ability to make, use, sell, offer for sale or import our product candidates and future approved products or impair our competitive position. There is a substantial amount of litigation, both within and outside the United States, involving patent and other intellectual property rights in the biotechnology and pharmaceutical industries, including patent infringement lawsuits, interferences, oppositions, reexaminations, *inter partes* review proceedings and post-grant review proceedings before the USPTO and/or corresponding foreign patent offices. Numerous third-party U.S. and foreign issued patents and pending patent applications exist in the fields in which we are developing product candidates. There may be third-party patents or patent applications with claims to materials, formulations, methods of manufacture or methods for treatment related to the use or manufacture of our product candidates. For example, we are aware of U.S. Serial Nos. 15/187,174 and 14/794,449, expiring in May 2031 (absent any patent term adjustments or extensions), directed to certain methods of identifying and using neoantigens. If a patent issues from such patent applications with claims similar to those that are currently pending, our ability to commercialize GRANITE-001 in the United States may be adversely affected if we do not obtain a license under such patent. In addition, we are aware of and have timely opposed EP Patent 2569633, expiring in May 2031 (absent any patent term adjustments or extensions), directed to certain methods of identifying and using neoantigens. EP Patent 2569633 is currently validated in Great Britain, France, Germany, Netherlands, Italy, Ireland, Spain and Switzerland. Our opposition was filed in the company's name on November 7, 2016 by Vossius & Partner. Four other parties also filed oppositions to the patent within the required timeframe. The European Patent Office has currently issued a Preliminary Opinion. The Preliminary Opinion, issued by the Opposition Division in December 2017, tentatively opines that EP Patent 2569633 at least does not meet the requirements of Article 123(2) of the European Patent Convention, or EPC, and that consequently, the patent would have to be revoked under Article 101(2) of the EPC. If EP Patent 2569633 is ultimately maintained by the Opposition Division with claims similar to those that are currently opposed, our ability to commercialize GRANITE-001 in certain European countries may be adversely affected if we do not obtain a license under the patent.

Furthermore, the scope of a patent claim is determined by an interpretation of the law, the written disclosure in a patent and the patent's prosecution history and can involve other factors such as expert opinion. Our interpretation of the relevance or the scope of claims in a patent or a pending application may be incorrect, which may negatively impact our ability to market our products. Further, we may incorrectly determine that our technologies, products, or product candidates are not covered by a third party patent or may incorrectly predict whether a third party's pending patent application will issue with claims of relevant scope. Our determination of the expiration date of any patent in the United States or abroad that we consider relevant may be incorrect, which may negatively impact our ability to develop and market our products or product candidates.

As the biotechnology industry expands and more patents are issued, the risk increases that our product candidates may be subject to claims of infringement of the patent rights of third parties. Our competitors in both the United States and abroad, many of which have substantially greater resources

and have made substantial investments in patent portfolios and competing technologies, may have applied for or obtained or may in the future apply for and obtain, patents that will prevent, limit or otherwise interfere with our ability to make, use and sell our product candidates. We do not always conduct independent reviews of pending patent applications of and patents issued to third parties.

Patent applications in the United States and elsewhere are typically published approximately 18 months after the earliest filing for which priority is claimed, with such earliest filing date being commonly referred to as the priority date. Certain U.S. applications that will not be filed outside the United States can remain confidential until patents issue. In addition, patent applications in the United States and elsewhere can be pending for many years before issuance, or unintentionally abandoned patents or applications can be revived. Furthermore, pending patent applications that have been published can, subject to certain limitations, be later amended in a manner that could cover our technologies, our product candidates or the use of our product candidates. As such, there may be applications of others now pending or recently revived patents of which we are unaware. These applications may later result in issued patents, or the revival of previously abandoned patents, that will prevent, limit or otherwise interfere with our ability to make, use or sell our products. Because patent applications are maintained as confidential for a certain period of time, until the relevant application is published we may be unaware of third-party patents that may be infringed by commercialization of GRANITE-001, SLATE-001 or our other product candidates, and cannot be certain that we were the first to file a patent application related to a product candidate or technology. Moreover, because patent applications can take many years to issue, there may be currently-pending patent applications that may later result in issued patents that our product candidates may infringe. In addition, identification of third-party patent rights that may be relevant to our technology is difficult because patent searching is imperfect due to differences in terminology among patents, incomplete databases and the difficulty in assessing the meaning of patent claims. Any claims of patent infringement asserted by third parties would be time consuming and could:

- result in costly litigation;
- divert the time and attention of our technical personnel and management;
- cause development delays;
- prevent us from commercializing GRANITE-001, SLATE-001 or our other product candidates until the asserted patent expires or is held finally invalid or not infringed in a court of law;
- require us to develop non-infringing technology, which may not be possible on a cost-effective basis;
- require us to pay damages to the party whose intellectual property rights we may be found to be infringing, which may include treble damages if we are found to have been willfully infringing such intellectual property;
- require us to pay the attorney's fees and costs of litigation to the party whose intellectual property rights we may be found to be infringing; and/or
- require us to enter into royalty or licensing agreements, which may not be available on commercially reasonable terms, or at all.

Although no third party has asserted a claim of patent infringement against us as of the date of this prospectus, others may hold proprietary rights that could prevent GRANITE-001, SLATE-001 or any future immunotherapy candidates from being marketed. Any patent-related legal action against us claiming damages and seeking to enjoin commercial activities relating to our product candidates or processes could subject us to potential liability for damages, including treble damages if we were determined to willfully infringe, and require us to obtain a license to manufacture or market GRANITE-001, SLATE-001 or any future immunotherapy candidates. Defense of these claims,

regardless of their merit, would involve substantial litigation expense and would be a substantial diversion of employee resources from our business. We cannot predict whether we would prevail in any such actions or that any license required under any of these patents would be made available on commercially acceptable terms, if at all. Even if such licenses are available, we could incur substantial costs related to royalty payments for licenses obtained from third parties, which could negatively affect our gross margins, and the rights may be non-exclusive, which could give our competitors access to the same technology or intellectual property rights licensed to us. In addition, we cannot be certain that we could redesign our product candidates or processes to avoid infringement, if necessary. Accordingly, an adverse determination in a judicial or administrative proceeding, or the failure to obtain necessary licenses, could prevent us from developing and commercializing GRANITE-001, SLATE-001 or any future immunotherapy candidates, which could harm our business, financial condition and operating results. In addition, intellectual property litigation, regardless of its outcome, may cause negative publicity and could prohibit us from marketing or otherwise commercializing our product candidates and technology.

If we collaborate with third parties in the development of technology in the future, our collaborators may not properly maintain or defend our intellectual property rights or may use our proprietary information in such a way as to invite litigation that could jeopardize or invalidate our intellectual property or proprietary information or expose us to litigation or potential liability. Further, collaborators may infringe the intellectual property rights of third parties, which may expose us to litigation and potential liability. Also, we may be obligated under our agreements with our collaborators, licensors, suppliers and others to indemnify and hold them harmless for damages arising from intellectual property infringement by us.

We may be involved in lawsuits to protect or enforce our patents or the patents of our licensors, which could be expensive, time consuming, and unsuccessful. Further, our issued patents could be found invalid or unenforceable if challenged in court.

Competitors may infringe our intellectual property rights or those of our licensors. To prevent infringement or unauthorized use, we may be required to file infringement claims, which can be expensive and time-consuming. In addition, in a patent infringement proceeding, a court may decide that a patent we own or in-license is not valid, is unenforceable and/or is not infringed. If we or any of our potential future collaborators were to initiate legal proceedings against a third party to enforce a patent directed at one of our product candidates, the defendant could counterclaim that our patent is invalid and/or unenforceable in whole or in part. In patent litigation in the United States, defendant counterclaims alleging invalidity and/or unenforceability are commonplace. Grounds for a validity challenge include an alleged failure to meet any of several statutory requirements, including lack of novelty, obviousness or non-enablement. Grounds for an unenforceability assertion could include 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. Similar mechanisms for challenging the validity and enforceability of a patent exist in ex-U.S. patent offices and may result in the revocation, cancellation, or amendment of any ex-U.S. patents we hold in the future. The outcome following legal assertions of invalidity and unenforceability is unpredictable, and prior art could render our patents or those of our licensors invalid. 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 such product candidate. Such a loss of patent protection would have a material adverse impact on our business.

Interference or derivation proceedings provoked by third parties or brought by us or declared by the USPTO may be necessary to determine the priority of inventions with respect to our patents or patent applications or those of our licensors. An unfavorable outcome could require us to cease using

the related technology or to attempt to license rights to it from the prevailing party. Our business could be harmed if the prevailing party does not offer us a license on commercially reasonable terms or at all, or if a non-exclusive license is offered and our competitors gain access to the same technology. Our defense of litigation or interference proceedings may fail and, even if successful, may result in substantial costs and distract our management and other employees. In addition, the uncertainties associated with litigation could have a material adverse effect on our ability to raise the funds necessary to continue our clinical trials, continue our research programs, license necessary technology from third parties or enter into development or manufacturing partnerships that would help us bring our product candidates to market.

Even if resolved in our favor, litigation or other legal proceedings relating to our intellectual property rights 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 substantial adverse effect on the price of our common stock. Such litigation or proceedings could substantially increase our operating losses and reduce the resources available for development activities or any future sales, marketing or distribution activities. We may not have sufficient financial or other resources to conduct such litigation or proceedings adequately. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their greater financial resources. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could compromise our ability to compete in the marketplace.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. There could also be public announcements of the results of hearings, motions or other interim proceedings or developments. 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.

We may not be successful in obtaining or maintaining necessary rights to our product candidates through acquisitions and in-licenses.

We currently have rights to the intellectual property, through licenses from third parties and under patents that we own, to develop our product candidates. Because our programs may require the use of proprietary rights held by third parties, the growth of our business will depend in part on our ability to acquire, in-license or use these proprietary rights. We may be unable to acquire or in-license any compositions, methods of use, processes or other third-party intellectual property rights from third parties that we identify as necessary for our product candidates. The licensing and acquisition of third-party intellectual property rights is a competitive area, and a number of more established companies are also pursuing strategies to license or acquire third-party intellectual property rights that we may consider attractive. These established companies may have a competitive advantage over us due to their size, cash resources and greater clinical development and commercialization capabilities. In addition, companies that perceive us to be a competitor may be unwilling to assign or license rights to us. We also may be unable to license or acquire third-party intellectual property rights on terms that would allow us to make an appropriate return on our investment.

We have collaborated with U.S. academic institutions and may in the future collaborate with U.S. and foreign academic institutions to accelerate our preclinical research or development under written agreements with these institutions. These institutions may provide us with an option to negotiate a license to any of the institution’s rights in technology resulting from the collaboration. Regardless of such option, we may be unable to negotiate a license within the specified timeframe or under terms

that are acceptable to us. If we are unable to do so, the institution may offer the intellectual property rights to other parties, potentially blocking our ability to pursue our program.

If we are unable to successfully obtain rights to required third-party intellectual property rights or maintain the existing intellectual property rights we have, we may have to abandon development of that program and our business and financial condition could suffer.

We may fail to comply with any of our obligations under existing or future agreements pursuant to which we license or have otherwise acquired intellectual property rights or technology, which could result in the loss of rights or technology that are material to our business.

We are party to various agreements that we depend on to operate our business, including intellectual property rights relating to GRANITE-001 and SLATE-001, in particular, our agreement with Arbutus. Our rights to use currently licensed intellectual property or intellectual property to be licensed in the future are subject to the continuation of and our compliance with the terms of these agreements. Disputes may arise regarding our rights to intellectual property licensed to us from a third party, including but not limited to:

- the scope of rights granted under the license agreement and other interpretation-related issues;
- the extent to which our technology and processes infringe on intellectual property of the licensor that is not subject to the licensing agreement;
- the sublicensing of patent and other rights;
- our diligence obligations under the license agreement and what activities satisfy those diligence obligations;
- the ownership of inventions and know-how resulting from the creation or use of intellectual property by us, alone or with our licensors and collaborators;
- the scope and duration of our payment obligations;
- our rights upon termination of such agreement; and
- the scope and duration of exclusivity obligations of each party to the agreement.

If disputes over intellectual property and other rights that we have licensed or acquired from third parties prevent or impair our ability to maintain our current license agreements on acceptable terms, we may be unable to successfully develop and commercialize the affected product candidates. If we fail to comply with our obligations under current or future license agreements, these agreements may be terminated or the scope of our rights under them may be reduced and we might be unable to develop, manufacture or market any product that is licensed under these agreements.

We may be subject to claims that we have wrongfully hired an employee from a competitor or that we or our employees have wrongfully used or disclosed alleged confidential information or trade secrets of their former employers.

As is common in the biotechnology and biopharmaceutical industries, in addition to our employees, we engage the services of consultants to assist us in the development of our product candidates. Many of these consultants, and many of our employees, were previously employed at, or may have previously provided or may be currently providing consulting services to, other biotechnology or biopharmaceutical companies including our competitors or potential competitors. Although we try to ensure that our employees and consultants do not use the proprietary information or know-how of others in their work for us, we may become subject to claims that we, our employees or a consultant inadvertently or otherwise used or disclosed trade secrets or other information proprietary to their

former employers or their former or current clients. Litigation may be necessary to defend against these claims. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights, which could adversely affect our business. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to our management team.

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. In addition, we may face claims by third parties that our agreements with employees, contractors or consultants obligating them to assign intellectual property to us are ineffective or in conflict with prior or competing contractual obligations of assignment, which could result in ownership disputes regarding intellectual property we have developed or will develop and interfere with our ability to capture the commercial value of such 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.

If we do not obtain patent term extension for our product candidates, our business may be materially harmed.

Depending upon the timing, duration and specifics of FDA marketing approval of GRANITE-001, SLATE-001 or any future immunotherapy candidates, one or more of our U.S. patents may be eligible for limited patent term restoration under the Drug Price Competition and Patent Term Restoration Act of 1984, also known as the Hatch-Waxman Amendments. The Hatch-Waxman Amendments permit a patent restoration term of up to five years as compensation for patent term lost during product development and the FDA regulatory review process. The Hatch-Waxman Act allows a maximum of one patent to be extended per FDA approved product as compensation for the patent term lost during the FDA regulatory review process. A patent term extension cannot extend the remaining term of a patent beyond a total of 14 years from the date of product approval and only those claims covering such approved drug product, a method for using it or a method for manufacturing it may be extended. Patent term extension may also be available in certain foreign countries upon regulatory approval of our product candidates. However, we may not be granted an extension because of, for example, failing to apply within applicable deadlines, failing to apply prior to expiration of relevant patents or otherwise failing to satisfy applicable requirements. Moreover, the applicable time period or the scope of patent protection afforded could be less than we request. If we are unable to obtain patent term extension or restoration or the term of any such extension is less than we request, our competitors may obtain approval of competing products following our patent expiration, and our revenue could be reduced, possibly materially.

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 or declared generic or determined to be infringing on other marks. We may not be able to protect our rights to these trademarks and trade names, which we need to build name recognition among potential partners or customers in our markets of interest. At times, competitors may adopt trade names or trademarks similar to ours, thereby impeding our ability to build brand identity and possibly leading to market confusion. In addition, there could be potential trade name or trademark

infringement claims brought by owners of other trademarks or trademarks that incorporate variations of our registered or unregistered trademarks or trade names. Over the long term, if we are unable to establish name recognition based on our trademarks and trade names, then we may not be able to compete effectively and our business may be adversely affected. We may license our trademarks and trade names to third parties, such as distributors. Though these license agreements may provide guidelines for how our trademarks and trade names may be used, a breach of these agreements or misuse of our trademarks and tradenames by our licensees may jeopardize our rights in or diminish the goodwill associated with our trademarks and trade names. Our efforts to enforce or protect our proprietary rights related to trademarks, trade names, trade secrets, domain names, copyrights or other intellectual property may be ineffective and could result in substantial costs and diversion of resources and could adversely affect our financial condition or results of operations.

Changes in patent law in the U.S. or in other countries could diminish the value of patents in general, thereby impairing our ability to protect our product candidates.

Our patent rights may be affected by developments or uncertainty in U.S. or ex-U.S. patent statutes, patent case laws in USPTO rules and regulations or in the rules and regulations of ex-U.S. patent offices. There are a number of recent changes to the U.S. patent laws that may have a significant impact on our ability to protect our technology and enforce our intellectual property rights. For example, on September 16, 2011, the Leahy-Smith America Invents Act, or Leahy-Smith Act, was signed into law. The Leahy-Smith Act includes a number of significant changes to U.S. patent law. These include provisions that affect the way patent applications will be prosecuted and may also affect patent litigation. In particular, under the Leahy-Smith Act, the United States transitioned in March 2013 to a “first to file” system in which the first inventor to file a patent application will be entitled to the patent. Third parties are allowed to submit prior art before the issuance of a patent by the USPTO, and may become involved in post-grant proceedings including opposition, derivation, reexamination, *inter partes* review or interference proceedings challenging our patent rights or the patent rights of others. An adverse determination in any such submission, proceeding or litigation could reduce the scope or enforceability of, or invalidate, our patent rights, which could adversely affect our competitive position. This could have a negative impact on some of our intellectual property and could increase uncertainties surrounding obtaining and enforcement or defense of our issued patents. In addition, Congress may pass patent reform legislation that is unfavorable to us. The Supreme Court has ruled on several patent cases in recent years, either narrowing the scope of patent protection available in certain circumstances or weakening the rights of patent owners in certain situations. In addition to increasing uncertainty with regard to our ability to obtain patents in the future, this combination of events has created uncertainty with respect to the value of patents, once obtained. Depending on decisions by Congress, the federal courts and the USPTO, the laws and regulations governing patents could change in unpredictable ways that would weaken our ability to obtain new patents or to enforce our existing patents and patents we might obtain in the future.

Similarly, statutory or judicial changes to the patent laws of other countries may increase the uncertainties and costs surrounding the prosecution of patent applications and the enforcement or defense of issued patents.

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

Filing, prosecuting and defending all current and future patents 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 product candidates, and our patents or other intellectual property rights may not be effective or sufficient to prevent them from competing.

The legal systems of many foreign countries do not favor the enforcement of patents and other intellectual property protection, 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. For example, some foreign countries have compulsory licensing laws under which a patent owner must grant licenses to third parties. In addition, some countries limit the enforceability of patents against third parties, including government agencies or government contractors. In these countries, patents may provide limited or no benefit. 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.

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

The USPTO and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other provisions during the patent process. Periodic maintenance fees, renewal fees, annuity fees and various other governmental fees on patents and/or applications will be due to be paid to the USPTO and various governmental patent agencies outside of the US in several stages over the lifetime of the patents and/or applications. We employ reputable professionals and rely on such third parties to help us comply with these requirements and effect payment of these fees with respect to the patents and patent applications that we own, and if we license intellectual property we may have to rely upon our licensors to comply with these requirements and effect payment of these fees with respect to any patents and patent applications that we license. In many cases, an inadvertent lapse can be cured by payment of a late fee or by other means in accordance with the applicable rules. However, there are situations in which noncompliance can result in abandonment or lapse of a patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. In such an event, competitors might be able to enter the market earlier than would otherwise have been the case.

Intellectual property rights do not necessarily address all potential threats to our competitive advantage.

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

- others may be able to make personalized cancer immunotherapies that are similar to ours but that are not covered by the claims of the patents that we own or have exclusively licensed;

- we or our licensors or future collaborators might not have been the first to make the inventions covered by the issued patents or pending patent applications that we own or have exclusively licensed;
- we or our licensors or future collaborators might not have been the first to file patent applications covering certain of our inventions;
- others may independently develop similar or alternative technologies or duplicate any of our technologies without infringing our intellectual property rights;
- it is possible that our pending patent applications will not lead to issued patents;
- issued patents that we own or have exclusively licensed may be held invalid or unenforceable, as a result of legal challenges by our competitors;
- our competitors might conduct research and development activities in countries where we do not have patent rights and then use the information learned from such activities to develop competitive products for sale in our major commercial markets;
- we may not develop additional proprietary technologies that are patentable; and
- the patents of others may have an adverse effect on our business.

Should any of these events occur, they could significantly harm our business, results of operations and prospects.

Risks Related to Government Regulation

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

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

Manufacturers and manufacturers' facilities are required to comply with extensive FDA and comparable foreign regulatory authority requirements, including ensuring that quality control and manufacturing procedures conform to cGMP regulations. 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 "off-label" for indications or uses for which they do not have approval. The holder of an approved application must submit new or supplemental applications and obtain approval for certain changes to the approved product, product labeling, or manufacturing process. We could also be asked to conduct post-marketing clinical studies to verify the safety and efficacy of our products in general or in specific patient subsets. An unsuccessful post-marketing study or failure to complete such a study could result in the withdrawal of marketing approval.

If a regulatory agency discovers previously unknown problems with a product, such as adverse events of unanticipated severity or frequency, or problems with the facility where the product is manufactured, or disagrees with the promotion, marketing or labeling of a product, 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;
- refuse to approve pending applications or supplements to approved applications submitted by us;
- impose restrictions on our operations, including closing our contract manufacturers' facilities; or
- seize or detain products, or require a product recall.

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

Moreover, the policies of the FDA and of other regulatory authorities may change and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of our product candidates. We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative or executive action, either in the United States or abroad. 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, 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 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.

We may seek orphan drug designation for certain future product 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 product 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 trial 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 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 product candidate, that exclusivity may not effectively protect the product from competition because different drugs with different active moieties can be approved for the same condition. Even after an orphan drug is approved, the FDA 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 product candidates and may affect the prices we may set.

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

- 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;
- expansion of eligibility criteria for Medicaid programs by, among other things, allowing states to offer Medicaid coverage to certain individuals with income at or below 133% of the federal poverty level, thereby potentially increasing a manufacturer's Medicaid rebate liability;
- a licensure framework for follow on biologic products;
- a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research; and
- establishment of a Center for Medicare 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 ACA, and we expect there will be additional challenges and amendments to the ACA in the future. For example, the Tax Cuts and Jobs Act of 2017 was enacted, which includes a provision repealing, effective January 1, 2019, the tax-based shared responsibility payment imposed by the ACA on certain individuals who fail to maintain qualifying health coverage for all or part of a year that is commonly referred to as the "individual mandate". Since the enactment of the Tax Cuts and Jobs Act of 2017, there have been additional amendments to certain provisions of the ACA, and we expect the current Trump administration and Congress will likely continue to seek to modify, repeal, or otherwise invalidate all, or certain provisions of, the ACA. 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 ACA was enacted. In August 2011, the Budget Control Act of 2011, among other things, led to aggregate reductions of Medicare payments to providers of 2% per fiscal year. These reductions went into effect in April 2013 and, due to subsequent legislative amendments to the statute, will remain in effect through 2027 unless additional action is taken by Congress. In January 2013, the American Taxpayer Relief Act of 2012 was signed into law, which, among other things, further reduced Medicare payments to several types of providers, including hospitals, imaging centers and cancer treatment centers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. These new laws or any other similar laws introduced in the future may result in additional reductions in Medicare and other health care funding, which could negatively affect our customers and accordingly, our financial operations.

Moreover, payment methodologies may be subject to changes in healthcare legislation and regulatory initiatives. For example, CMS may develop new payment and delivery models, such as bundled payment models. In addition, recently there has been heightened governmental scrutiny over the manner in which manufacturers set prices for their marketed products, which has resulted in several U.S. Congressional inquiries and proposed and enacted federal and state legislation designed to, among other things, bring more transparency to drug pricing, reduce the cost of prescription drugs under government payor programs, and review the relationship between pricing and manufacturer patient programs. The Trump administration's budget proposal for fiscal year 2019 contains further drug price control measures that could be enacted during the 2019 budget process or in other future legislation, including, for example, measures to permit Medicare Part D plans to negotiate the price of certain drugs under Medicare Part B, to allow some states to negotiate drug prices under Medicaid, and to eliminate cost sharing for generic drugs for low-income patients. Further, the Trump

administration released a “Blueprint”, or plan, to lower drug prices and reduce out of pocket costs of drugs that contains additional proposals to increase drug manufacturer competition, increase the negotiating power of certain federal healthcare programs, incentivize manufacturers to lower the list price of their products, and reduce the out of pocket costs of drug products paid by consumers. The Department of Health and Human Services, or HHS, has already started the process of soliciting feedback on some of these measures and, at the same time, is immediately implementing others under its existing authority. While some proposed measures will require authorization through additional legislation to become effective, Congress and the Trump administration have each indicated that it will continue to seek new legislative and/or administrative measures to control drug costs. We expect that additional U.S. federal healthcare reform measures will be adopted in the future, any of which could limit the amounts that the U.S. federal government will pay for healthcare products and services, which could result in reduced demand for our product candidates or additional pricing pressures.

Individual states in the United States have also increasingly passed legislation and implemented 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 product candidates or put pressure on our product pricing.

In the European Union, similar political, economic and regulatory developments may affect our ability to profitably commercialize our product candidates, if approved. In addition to continuing pressure on prices and cost containment measures, legislative developments at the European Union or member state level may result in significant additional requirements or obstacles that may increase our operating costs. The delivery of healthcare in the European Union, including the establishment and operation of health services and the pricing and reimbursement of medicines, is almost exclusively a matter for national, rather than European Union, 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 European Union member states have resulted in restrictions on the pricing and reimbursement of medicines by relevant health service providers. Coupled with ever-increasing European Union and national regulatory burdens on those wishing to develop and market products, this could prevent or delay marketing approval of our product candidates, restrict or regulate post-approval activities and affect our ability to commercialize our product candidates, if approved. In markets outside of the United States and European Union, 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 European Union or any other jurisdiction. If we or any third parties we may engage are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we or such third parties are not able to maintain regulatory compliance, our product candidates may lose any regulatory approval that may have been obtained and we may not achieve or sustain profitability.

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

Our business operations and current and future arrangements with investigators, healthcare professionals, consultants, third-party payors, patient organizations and customers, may expose us to broadly applicable fraud and abuse and other healthcare laws and regulations. These laws may constrain the business or financial arrangements and relationships through which we conduct our operations, including how we research, market, sell and distribute our product candidates, if approved. Such laws include:

- 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 any U.S. federal healthcare program, 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 civil and criminal false claims and civil monetary penalties laws, including the civil False Claims Act, which prohibit, among other things, including through civil whistleblower or qui tam actions, individuals or entities from 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. Pharmaceutical manufacturers can cause false claims to be presented to the U.S. federal government by engaging in impermissible marketing practices, such as the off-label promotion of a product for an indication for which it has not received FDA approval. 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 civil False Claims Act;
- HIPAA, which imposes criminal and civil liability for, among other things, knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program, or knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false statement, in connection with the delivery of, or payment for, healthcare benefits, items or services. Similar to the U.S. federal Anti-Kickback Statute, a person or entity does not need to have actual knowledge of the healthcare fraud statute implemented under HIPAA or specific intent to violate it in order to have committed a violation;
- HIPAA, as amended by HITECH, and its implementing regulations, which also imposes certain obligations, including mandatory contractual terms, with respect to safeguarding the privacy and security of individually identifiable health information of covered entities subject to the rule, such as health plans, healthcare clearinghouses and certain healthcare providers as well as their business associates, independent contractors of a covered entity that perform certain services involving the use or disclosure of individually identifiable health information on their behalf;
- 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 requires certain manufacturers of drugs, devices, biologics and medical supplies that are reimbursable under Medicare, Medicaid, or the Children's Health Insurance Program, with specific exceptions, 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 physicians 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; state and local laws requiring the registration of pharmaceutical sales representatives; 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
- the U.S. Foreign Corrupt Practices Act of 1977, as amended, which prohibits, among other things, U.S. companies and their employees and agents from authorizing, promising, offering, or providing, directly or indirectly, corrupt or improper payments or anything else of value to foreign government officials, employees of public international organizations and foreign government owned or affiliated entities, candidates for foreign political office, and foreign political parties or officials thereof;
- similar healthcare laws and regulations in the European Union 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, integrity oversight and reporting obligations to resolve allegations of non-compliance, disgorgement, individual imprisonment, contractual damages, reputational harm, diminished profits and the curtailment or restructuring of our operations. If any of the physicians or other providers or entities with whom we expect to do business are found to not be in compliance with applicable laws, they may be subject to criminal, civil or administrative sanctions, including exclusions from government funded healthcare programs and imprisonment, which could affect our ability to operate our business. 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.

Risks Related to Our Common Stock and This Offering

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

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

- results from, and any delays in, our clinical trials for GRANITE-001, SLATE-001 or any other future clinical development programs, including public misperception of the results of our trials;
- announcements by academic or other third parties challenging the fundamental premises underlying our approach to treating cancer and/or biopharmaceutical product development;
- announcements of regulatory approval or disapproval of our current or any future product candidates;
- failure or discontinuation of any of our research and development programs;
- manufacturing setbacks or delays of or issues with the supply of the materials for our personalized immunotherapy candidate;
- announcements relating to future licensing, collaboration or development agreements, including the early termination or failure of an existing strategic collaboration;
- delays in the commercialization of our current or any future product candidates;
- public misperception regarding the use of our therapies;
- acquisitions and sales of new products, technologies or businesses;
- 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 product candidates;
- market conditions in the 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 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 trials and operating results fail to meet the expectations of analysts, our stock price would likely decline. If one or more of these analysts cease coverage of us or fail to publish reports on us regularly, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline.

We 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 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. We will remain an emerging growth company until the earlier of (1) the last day of the fiscal year (a) following the fifth anniversary of the completion of this offering, (b) in which we have total annual gross revenue of at least $1.07 billion, or (c) in which we are deemed to be a large accelerated filer, which means the market value of our common stock that is held by non-affiliates exceeds $700.0 million as of the prior June 30th, and (2) the date on which we have issued more than $1.0 billion in non-convertible debt during the prior three-year period.

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 on CROs to provide timely and accurate notice of their costs to us. Any failure to report our financial results on an accurate and timely basis could result in sanctions, lawsuits, delisting of our shares from the Nasdaq Global Market or other adverse consequences that would materially 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 and substantial dilution of approximately $8.09 per share, based on an assumed initial public offering price of $14.00 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 June 30, 2018. In addition, following this offering, purchasers in this offering will have contributed approximately 32.2% of the total gross consideration paid by stockholders to us to purchase shares of our common stock, through June 30, 2018, but will own only approximately 21.5% 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.

Prior to this offering, as of August 31, 2018, our executive officers, directors, holders of 5.0% or more of our capital stock and their respective affiliates held approximately 77.0% of our outstanding voting stock and, upon the closing of this offering, that same group will hold approximately 60.0% of our outstanding voting stock (assuming no exercise of the underwriters' option to purchase additional shares and no exercise of outstanding options). In addition, certain of our stockholders, including bluebird bio, our collaboration partner, and entities affiliated with holders of 5.0% or more of our capital stock and certain of our directors, have indicated an interest in purchasing an aggregate of approximately $35.0 million of shares of our common stock in this offering at the initial public offering price and on the same terms as the other purchasers in this offering. If such stockholders purchase all shares they have indicated an interest in purchasing, our executive officers, directors, holders of 5.0% or more of our capital stock and their respective affiliates will hold approximately 72.0% of our outstanding voting stock upon the closing of this offering (based on the assumed initial public offering price of $14.00 per share, the midpoint of the estimated price range set forth on the cover page of this prospectus, and assuming no exercise of the underwriters' option to purchase additional shares and no exercise of outstanding options). Therefore, even after this offering these stockholders will have the ability to influence us through this ownership position. These stockholders may be able to determine all matters requiring stockholder approval. For example, these stockholders may be able to control elections of directors, amendments of our organizational documents, or approval of any merger, sale of assets, or other major corporate transaction. This may prevent or discourage unsolicited acquisition proposals or offers for our common stock that you may feel are in your best interest as one of our stockholders.

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

If our existing stockholders sell, or indicate an intention to sell, substantial amounts of our common stock in the public market after the lock-up and other legal restrictions on resale discussed in this prospectus lapse, the trading price of our common stock could decline. Based upon the number of shares outstanding as of August 31, 2018, upon the closing of this offering, we will have outstanding a total of 28,233,314 shares of common stock, assuming no exercise of the underwriters' option to purchase additional shares of common stock and no exercise of outstanding options. Of these shares, approximately 6,071,428 shares of our common stock sold in this offering, 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. After the lock-up agreements expire, as of August 31, 2018, up to approximately 22.2 million additional shares of common stock will be eligible for sale in the public market,

approximately 10.6 million of which shares are held by directors, executive officers and other affiliates and will be subject to Rule 144 under the Securities Act of 1933, as amended, or the Securities Act. Goldman Sachs & Co. LLC, Cowen and Company, LLC and Barclays Capital 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 August 31, 2018, approximately 2.5 million shares of common stock that are either subject to outstanding options or reserved for future issuance under our existing equity incentive plan will become eligible for sale in the public market to the extent permitted by the provisions of various vesting schedules, the lock-up agreements and Rule 144 and Rule 701 under the Securities Act. If these additional shares of common stock are sold, or if it is perceived that they will be sold, in the public market, the trading price of our common stock could decline.

After this offering, the holders of approximately 19.4 million shares of our common stock, or approximately 87.6% of our total outstanding common stock as of August 31, 2018, 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 the net proceeds of this offering to fund our planned Phase 1/2 clinical trial of GRANITE-001, continued buildout of our manufacturing facility, internal research and development activities including preclinical and IND-enabling activities for SLATE-001, 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. While we do not believe we have experienced ownership changes in the past, it is possible we have done so, and we 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, even if we attain profitability, we may be unable to use a material portion of our NOLs and other tax attributes.

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 legislation, and certain provisions of the new law may adversely affect us. Changes include, but are not limited to, a federal corporate income 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 condition and 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 our chief executive officer or president or by the board of directors, which may delay the ability of our stockholders to force consideration of a proposal or to take action, including the removal of directors; and

- advance notice procedures that stockholders must comply with in order to nominate candidates to our board of directors or to propose matters to be acted upon at a stockholders' meeting, which may discourage or deter a potential acquiror from conducting a solicitation of proxies to elect the acquiror's own slate of directors or otherwise attempting to obtain control of us.

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

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 for an exclusive forum in the Court of Chancery of the State of Delaware and in the U.S. federal district courts for certain disputes between us and our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers or employees.

Our amended and restated certificate of incorporation will provide that the Court of Chancery of the State of Delaware 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. Similarly, our amended and restated certificate of incorporation will provide that the U.S. federal district courts are the exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act. 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 market size and size of the potential patient populations for GRANITE-001, SLATE-001 and any future product candidates, if approved for commercial use;
- our clinical and regulatory development plans;
- our expectations with regard to our Gritstone EDGE platform, including our ability to utilize the platform to predict the TSNA that will be presented on a patient’s tumor cells and identify shared antigens for other therapeutic classes;
- our expectations with regard to the data to be derived in our planned Phase 1/2 clinical trial, GO-004;
- the timing of commencement of future nonclinical studies and clinical trials and research and development programs;
- our ability to acquire, discover, develop and advance product candidates into, and successfully complete, clinical trials;
- our intentions and our ability to establish collaborations and/or partnerships;
- the timing or likelihood of regulatory filings and approvals for our product candidates;
- our commercialization, marketing and manufacturing capabilities and expectations;
- our intentions with respect to the commercialization of our product candidates;
- the pricing and reimbursement of our product candidates, if approved;
- the implementation of our business model and strategic plans for our business, product candidates and technology platforms, including additional indications for which we may pursue;
- the scope of protection we are able to establish and maintain for intellectual property rights covering our product candidates, including the projected terms of patent protection;
- estimates of our expenses, future revenue, capital requirements, our needs for additional financing and our ability to obtain additional capital;
- our use of proceeds from this offering;
- our future financial performance;
- developments and projections relating to our competitors and our industry, including competing therapies and procedures; 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

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.”

MARKET AND INDUSTRY DATA

This prospectus contains estimates, projections and other information concerning our industry, our business, as well as data regarding market research, estimates and forecasts prepared by our management. Information that is based on estimates, forecasts, projections, market research or similar methodologies is inherently subject to uncertainties and actual events or circumstances may differ materially from events and circumstances that are assumed in this information. 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 6,071,428 shares of our common stock in this offering will be approximately $76.0 million at an assumed initial public offering price of $14.00 per share (the midpoint of the range set forth on the cover of this prospectus), after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. If the underwriters exercise their option to purchase additional shares in full, we estimate that the net proceeds will be approximately $87.9 million at an assumed initial public offering price of $14.00 per share (the midpoint of the range set forth on the cover of this prospectus), after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

Each $1.00 increase (decrease) in the assumed initial public offering price of $14.00 per share (the midpoint of the range set forth on the cover of this prospectus) would increase (decrease) the net proceeds to us from this offering, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, by approximately $5.6 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. Each 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 underwriting discounts and commissions and estimated offering expenses payable by us, by approximately $13.0 million, assuming the assumed initial public offering price stays the same. We do not expect that a change in the offering price or the number of shares by these amounts would have a material effect on our intended uses of the net proceeds from this offering, although it may impact the amount of time prior to which we may need to seek additional capital.

We currently expect to use our net proceeds from this offering, together with our existing cash, cash equivalents and marketable securities, as follows:

- approximately $20.0 million to $25.0 million to fund our planned Phase 1/2 clinical trial of GRANITE-001;
- approximately $15.0 million to $18.0 million to fund the continued buildout of our manufacturing facility;
- approximately $10.0 million to $15.0 million to fund internal research and development activities, including preclinical and IND-enabling activities for SLATE-001; and
- the balance for working capital and general corporate purposes.

We may also use a portion of the remaining net proceeds and our existing cash, cash equivalents and marketable securities to in-license, acquire, or invest in complementary businesses, technologies, products or assets. However, we have no current commitments or obligations to do so.

Due to the uncertainties inherent in the clinical development and regulatory approval process, it is difficult to estimate with certainty the exact amounts of the net proceeds from this offering that may be used for the above purposes. As such, our management will retain broad discretion over the use of the net proceeds from this offering. The amounts and timing of our expenditures will depend upon numerous factors, including: (i) the time and cost necessary to advance GRANITE-001 through our planned Phase 1/2 clinical trial and future clinical trials; (ii) the timing of scaling our manufacturing capabilities and internalizing certain of our manufacturing processes; (iii) the time and cost associated with our research and development activities; and (iv) our ability to obtain regulatory approval for and subsequently commercialize GRANITE-001, SLATE-001 and any other future product candidates.

We believe that our existing cash, cash equivalents and marketable securities, together with the net proceeds from this offering, will be sufficient to fund our planned operations for at least 12 months

following the date of this offering and through preliminary efficacy data for our planned Phase 1/2 clinical trial for GRANITE-001. After this offering, we will require substantial capital in order to advance GRANITE-001, SLATE-001 and any other future product candidates through pivotal clinical trials, regulatory approval and commercialization. For additional information regarding our potential capital requirements, see “Risk Factors—We will require substantial additional financing to achieve our goals, and a failure to obtain this necessary capital when needed on acceptable terms, or at all, could force us to delay, limit, reduce or terminate our product development programs, commercialization efforts or other operations.”

Pending the use of the proceeds from this offering, we intend to invest the net proceeds in interest-bearing, investment-grade securities, certificates of deposit or 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 June 30, 2018:

- on an actual basis;
- on a pro forma basis to give effect to: (i) our issuance and sale during July and August 2018 of an aggregate of 921,475 shares of our Series C convertible preferred stock for cash consideration of $12.0 million, which includes 768,115 shares that bluebird bio purchased for cash consideration of approximately $10.0 million in connection with our strategic collaboration; (ii) the automatic conversion of all shares of our convertible preferred stock outstanding at June 30, 2018, together with the shares of Series C convertible preferred stock we issued during July and August 2018, into an aggregate of 19,409,132 shares of our common stock, which will be effective 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 6,071,428 shares of common stock in this offering at an assumed initial public offering price of $14.00 per share (the midpoint of the range set forth on the cover of this prospectus), after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

You should read this information together with our 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 June 30, 2018		
	Actual	Pro Forma	Pro Forma As Adjusted(1)
	(In thousands, except share and per share data) (unaudited)		
Cash, cash equivalents and marketable securities	$ 64,490	$ 76,507	$ 152,557
Stockholders’ equity:			
Convertible preferred stock, $0.0001 par value— 139,228,319 shares authorized, 18,487,657 shares issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted	$ 165,865	$ —	$ —
Common stock, $0.0001 par value—175,250,000 shares authorized, 2,408,611 shares issued and outstanding, actual; 300,000,000 shares authorized, 21,817,743 shares issued and outstanding, pro forma; 300,000,000 shares authorized, 27,889,171 shares issued and outstanding, pro forma as adjusted	2	2	3
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	3,311	181,193	257,243
Accumulated other comprehensive loss	(31)	(31)	(31)
Accumulated deficit	(90,475)	(90,475)	(90,475)
Total stockholders’ equity	78,672	90,689	166,740
Total capitalization	$ 78,672	$ 90,689	$ 166,740

(1) A $1.00 increase (decrease) in the assumed initial public offering price of $14.00 per share (the midpoint of the range set forth on the cover of this prospectus) would increase (decrease) the amount of each of cash, cash equivalents and marketable securities, additional paid-in capital, total stockholders' equity and total capitalization by approximately $5.6 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 underwriting discounts and commissions and estimated offering expenses payable by us. We may also increase or decrease the number of shares we are offering. Each increase (decrease) of 1,000,000 shares in the number of shares offered by us would increase (decrease) each of cash, cash equivalents and marketable securities, additional paid-in capital, total stockholders' equity and total capitalization by approximately $13.0 million, assuming the assumed initial public offering price of $14.00 per share (the midpoint of the range set forth on the cover of this prospectus) remains the same, and after deducting 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.

The outstanding share information in the table above excludes the following:

- 1,667,674 shares of common stock issuable upon the exercise of outstanding stock options as of June 30, 2018 having a weighted-average exercise price of $1.50 per share;
- 808,839 shares of common stock reserved for issuance pursuant to future awards under our 2015 Equity Incentive Plan, as amended, as of June 30, 2018, which will become available for issuance under our 2018 Incentive Award Plan after consummation of this offering;
- 336,608 shares of issued and outstanding restricted common stock that were subject to repurchase as of June 30, 2018;
- 2,690,000 shares of common stock reserved for issuance pursuant to future awards under our 2018 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 on the day prior to the first public trading date of our common stock; and
- 282,334 shares of common stock reserved for issuance pursuant to future awards under our 2018 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 on the day prior to the first public trading date of our common stock.

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 June 30, 2018, we had a historical net tangible book value of $78.7 million, or $28.66 per share of common stock. Our net tangible book value represents total tangible assets less total liabilities, all divided by 2,745,219 shares of common stock outstanding on June 30, 2018, which includes 336,608 shares of restricted common stock that were subject to repurchase as of June 30, 2018. Our pro forma net tangible book value at June 30, 2018, before giving effect to this offering, was $90.7 million, or $4.09 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:

- our issuance and sale during July and August 2018 of an aggregate of 921,475 shares of our Series C convertible preferred stock for cash consideration of $12.0 million, which includes 768,115 shares that bluebird bio purchased for cash consideration of approximately $10.0 million in connection with our strategic collaboration;
- the automatic conversion of all shares of our convertible preferred stock outstanding at June 30, 2018, together with the shares of Series C convertible preferred stock we issued during July and August 2018, into an aggregate of 19,409,132 shares of our common stock, which will be effective 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.

After giving effect to the sale of 6,071,428 shares of common stock in this offering at an assumed initial public offering price of $14.00 per share (the midpoint of the range set forth on the cover of this prospectus) and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, our pro forma as adjusted net tangible book value as of June 30, 2018 would have been approximately $166.7 million, or $5.91 per share. This represents an immediate increase in pro forma as adjusted net tangible book value of $1.82 per share to existing stockholders and an immediate dilution of $8.09 per share to new investors. The following table illustrates this per share dilution:

Assumed initial public offering price per share		$14.00
Historical net tangible book value per share as of June 30, 2018	$ 28.66	
Pro forma decrease in historical net tangible book value per share attributable to the pro forma transactions described in the preceding paragraphs	(24.57)	
Pro forma net tangible book value per share as of June 30, 2018	4.09	
Increase in pro forma net tangible book value per share attributable to new investors purchasing shares in this offering	1.82	
Pro forma as adjusted net tangible book value per share after this offering		5.91
Dilution per share to new investors purchasing shares in this offering		$ 8.09

Each $1.00 increase (decrease) in the assumed initial public offering price of $14.00 per share (the midpoint of the range set forth on the cover of this prospectus) would increase (decrease) our pro forma as adjusted net tangible book value as of June 30, 2018 after this offering by approximately $5.6 million, or approximately $0.20 per share, and would increase (decrease) dilution to investors in this offering by approximately $0.80 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 underwriting

discounts and commissions and estimated offering expenses payable by us. We may also increase or decrease the number of shares we are offering. Assuming the assumed initial public price of $14.00 per share (the midpoint of the range set forth on the cover of this prospectus) remains the same, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, each 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 June 30, 2018 after this offering by approximately $13.0 million, or approximately $0.24 per share, and would decrease dilution to investors in this offering by approximately $0.24 per share, and 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 June 30, 2018 after this offering by approximately $13.0 million, or approximately $0.26 per share, and would increase dilution to investors in this offering by approximately $0.26 per share. 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 $6.13 per share, and there would be an immediate dilution of approximately $7.87 per share to new investors.

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 June 30, 2018, 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 $14.00 per share (the midpoint of the range set forth on the cover of this prospectus), before deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us:

	Shares Purchased		Total Consideration		Average Price Per Share
	Number	Percent	Amount (in thousands)	Percent	
Existing stockholders before this offering	22,154,351	78.5%	$ 178,678	67.8%	$ 8.07
Investors participating in this offering(1)	6,071,428	21.5	84,999	32.2	$ 14.00
Total	28,225,779	100%	$ 263,677	100%	

(1) Certain of our stockholders, including certain of our stockholders affiliated with our directors, have indicated an interest in purchasing an aggregate of approximately $35.0 million of shares of our common stock in this offering at the initial public offering price and on the same terms as the other purchasers in this offering. However, because indications of interest are not binding agreements or commitments to purchase, the underwriters may determine to sell more, fewer or no shares in this offering to any of these stockholders, or any of these stockholders may determine to purchase more, fewer or no shares in this offering. The underwriters will receive the same underwriting discount on any shares purchased by these persons or entities as they will on any other shares sold to the public in this offering. The presentation in this table regarding ownership by existing stockholders does not give effect to any purchases in this offering by such investors.

The number of shares of common stock to be outstanding after this offering is based on 22,154,351 shares of common stock outstanding as of June 30, 2018, and includes an aggregate of 18,487,657 million shares of common stock issuable upon conversion of our outstanding Series A,

Series B and Series C convertible preferred stock as of June 30, 2018, 921,475 shares of common stock issuable upon conversion of our Series C convertible preferred stock that we issued in July and August 2018, and 336,608 shares of restricted common stock that were subject to repurchase as of June 30, 2018, and excludes the following:

- 1,667,674 shares of common stock issuable upon the exercise of outstanding stock options as of June 30, 2018 having a weighted-average exercise price of $1.50 per share;
- 808,839 shares of common stock reserved for issuance pursuant to future awards under our 2015 Equity Incentive Plan, as amended, as of June 30, 2018, which will become available for issuance under our 2018 Incentive Award Plan after consummation of this offering;
- 2,690,000 shares of common stock reserved for issuance pursuant to future awards under our 2018 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 on the day prior to the first public trading date of our common stock; and
- 282,334 shares of common stock reserved for issuance pursuant to future awards under our 2018 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 on the day prior to the first public trading date of our common stock.

To the extent any outstanding options are exercised, or we issue additional equity or convertible debt securities in the future, there will be further dilution to new investors.

SELECTED FINANCIAL DATA

The following tables present our selected financial data for the periods and as of the dates indicated. We have derived the following selected statements of operations and comprehensive loss 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 and related notes included elsewhere in this prospectus. The selected statement of operations data for the six months ended June 30, 2017 and 2018 and the selected balance sheet data as of June 30, 2018 are derived from our unaudited interim condensed financial statements included elsewhere in this prospectus. The unaudited interim condensed financial statements have been prepared in accordance with generally accepted accounting principles in the United Stated of America and on the same basis as the audited financial statements and, in the opinion of management, reflect all adjustments, which include only normal recurring adjustments, necessary to present fairly our financial position as of June 30, 2018 and the results of operations for the six months ended June 30, 2017 and 2018. Our historical results are not necessarily indicative of the results that may be expected in the future and results for the six months ended June 30, 2018 are not necessarily indicative of results to be expected for the full year. You should read the financial data below in conjunction with the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our audited financial statements and unaudited interim condensed financial statements and related notes included elsewhere in this prospectus.

	Year Ended December 31,		Six Months Ended June 30,	
	2016	2017	2017	2018
			(unaudited)	
	(in thousands, except share and per share data)			
Statements of Operations and Comprehensive Loss Data:				
Operating Expenses:				
Research and development	$ 13,916	$ 35,691	$ 11,855	$ 24,090
General and administrative	5,064	6,072	2,840	4,852
Total operating expenses	18,980	41,763	14,695	28,942
Loss from operations	(18,980)	(41,763)	(14,695)	(28,942)
Interest income, net	230	386	138	94
Net loss	(18,750)	(41,377)	(14,557)	(28,848)
Unrealized loss on marketable securities	(2)	(71)	(2)	(31)
Other comprehensive loss	$ (18,752)	$ (41,448)	$ (14,559)	$ (28,879)
Net loss per share, basic and diluted(1)	$ (11.21)	$ (20.70)	$ (7.63)	$ (12.62)
Weighted-average number of shares outstanding, basic and diluted(1)	1,672,545	1,999,044	1,906,725	2,285,906
Pro forma net loss per share, basic and diluted(1)		$ (3.02)		$ (1.44)
Pro forma weighted-average number of shares outstanding, basic and diluted(1)		13,699,938		20,091,061

(1) See Notes 2 and 12 to our audited financial statements, and Notes 2 and 10 to our unaudited interim condensed financial statements, included elsewhere in this prospectus for further details on the calculations of our basic and diluted net loss per share, basic and diluted pro forma net loss per share and the weighted-average number of shares used in the computation of the per share amounts.

	As of December 31,		As of June 30,
	2016	2017	2018
			(unaudited)
		(in thousands)	
Balance Sheets Data:			
Cash, cash equivalents and marketable securities	$ 37,507	$ 85,953	$ 64,490
Working capital(1)	35,897	80,827	61,697
Total assets	46,421	117,300	95,951
Total liabilities	4,732	20,018	17,280
Convertible preferred stock	61,139	156,937	165,865
Accumulated deficit	(20,250)	(61,627)	(90,475)
Total stockholders' equity	41,689	97,282	78,672

(1) We define working capital as current assets less current liabilities. See our audited financial statements and unaudited interim condensed financial statements and related notes included elsewhere in this prospectus for details regarding our current assets and current liabilities.

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

You should read the following discussion and analysis of our financial condition and results of operations together with the section titled "Selected Financial Data" and our audited financial statements and unaudited interim condensed 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 titled "Risk Factors" included elsewhere in this prospectus.

Overview

We are an immuno-oncology company developing tumor-specific cancer immunotherapies to fight multiple cancer types. Our approach harnesses the natural power of a patient's own immune system to recognize short tumor-specific peptide sequences presented on cancer cells, referred to as tumor-specific neoantigens, or TSNA, in order to destroy tumor cells. Our tumor-specific immunotherapy treatment is built on two key pillars—first, our proprietary Gritstone EDGE platform, which gives us a superior ability to predict, from a routine tumor biopsy, the TSNA that are presented on a patient's tumor cells; and second, our ability to develop and manufacture potent immunotherapies utilizing patients' TSNA to drive the patient's immune system to attack and destroy tumors.

We intend to initiate a Phase 1/2 clinical trial of our first personalized immunotherapy product candidate, GRANITE-001, in the second half of 2018, evaluating it in the treatment of common solid tumors, including metastatic non-small cell lung cancer and gastroesophageal, bladder and colorectal cancers, in each case in combination with checkpoint inhibitors provided by our partner, Bristol-Myers Squibb Company, or BMS. Our second tumor-specific product candidate series, SLATE, utilizes the same antigen delivery system as GRANITE-001 but contains a fixed cassette with TSNA that are shared across a subset of cancer patients rather than a cassette unique to an individual patient, providing us with an off-the-shelf alternative to our personalized manufactured product candidate, GRANITE-001. We intend to initiate a Phase 2 clinical trial of SLATE-001, our first off-the-shelf product candidate, in the second half of 2019.

Beyond TSNA-directed therapeutics, we are leveraging our expertise in cancer genomics and our tumor antigen discovery platform to identify novel peptide sequences (not mutated) that may be shared across common tumor types (tumor-specific shared antigens), which we believe likely have value as targets to direct T cells onto tumors specifically. These shared antigen targets enable us to opportunistically partner or develop additional therapeutic approaches to redirect T cells onto tumors using these highly specific targets. These approaches include (1) off-the-shelf shared, non-mutated tumor antigens in our heterologous prime-boost platform, (2) modifying the receptors of the patient's own T cells to help them recognize tumor targets (adoptive T cell therapy) and (3) using small adapter proteins that have two recognition arms—one for tumors and one for T cells (bispecific antibodies). In August 2018, we announced our first collaboration supporting this strategy with bluebird bio, Inc., or bluebird bio, whereby we will identify up to ten tumor-specific targets and associated T cell receptors for therapeutic application within bluebird bio's cell therapy platform.

We have funded our operations to date primarily from private placements of our convertible preferred stock, including a $10.0 million investment in our Series C convertible preferred stock by

bluebird bio, as well as a $20.0 million upfront payment from bluebird bio in August 2018. We do not expect to generate revenue from any product candidates that we develop until we obtain regulatory approval for one or more of such product candidates and commercialize our products or enter into collaboration agreements with third parties. 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. GRANITE-001 and SLATE-001 will require substantial additional development time and resources before we would be able to apply for or receive regulatory approvals and begin generating revenue from product sales. In addition, upon the completion of this offering we expect to incur additional costs associated with operating as a public company. We also do not yet have a sales organization or commercial infrastructure and, accordingly, we will incur significant expenses to develop a sales organization or commercial infrastructure in advance of generating any commercial product sales. As a result, we will need substantial additional capital to support our operating activities.

We currently anticipate that we will seek to fund our operations through equity or debt financings or other sources, such as potential collaboration agreements with third parties. Adequate funding may not be available to us on acceptable terms, or at all. If sufficient funds on acceptable terms are not available when needed, we will be required to significantly reduce our operating expenses and delay, reduce the scope of, or eliminate one or more of our development programs. As a result, there is substantial doubt about our ability to continue as a going concern. See "—Liquidity and Capital Resources" below and Note 2 to the audited financial statements and unaudited interim condensed financial statements and related notes included elsewhere in this prospectus for additional information describing the circumstances that led to this determination.

Manufacturing is a vital component of personalized immunotherapy, and we have invested significantly in our manufacturing facility, which opened in November 2017. We currently use a hybrid approach to manufacturing our personalized immunotherapy wherein certain elements of our product candidates are manufactured on an outsourced basis at qualified third-party contract manufacturing organizations, or CMOs, and other elements of our product candidates are manufactured internally. Our goal is to internalize the majority of the manufacturing steps to drive down both cost and production time, as well as establish full control over intellectual property and product quality, which will require significant investments in our manufacturing facility and processes.

Since we commenced operations in August 2015, we have invested a significant portion of our efforts and financial resources in research and development activities and establishing our manufacturing facility, and we have incurred net losses each year since inception. Our net losses were $18.8 million and $41.4 million for the years ended December 31, 2016 and 2017, respectively, and $28.8 million for the six months ended June 30, 2018. We do not have any products approved for sale, and we have never generated any revenue from contracts with customers. As of June 30, 2018, we had an accumulated deficit of $90.5 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 advance our personalized cancer immunotherapy through clinical development, seek regulatory approval, prepare for and, if approved, proceed to commercialization, continue our research and development efforts and invest in our manufacturing facility.

Components of Our Operating Results

Operating Expenses

Research and Development Expenses

Since our inception, we have focused significant resources on our research and development activities, including conducting preclinical studies, manufacturing development efforts and activities

related to the submission of our Investigational New Drug application, or IND, for GRANITE-001. Research and development activities account for a significant portion of our operating expenses. Research and development costs are expensed as incurred. These costs include:

- External research and development expenses, including:
  - Expenses incurred under arrangement with third parties, including clinical research organizations, or CROs, preclinical testing organizations, CMOs, academic and non-profit institutions and consultants;
  - Fees related to our license agreements;
- Internal research and development expenses, including:
  - Personnel related expenses, including salaries, payroll taxes, benefits, non-cash stock-based compensation and travel, for employees contributing to research and development activities, including the costs associated with the development of our EDGE platform; and
- Other expenses, which include direct and allocated expenses for laboratories, facilities and other costs.

In October 2017, we entered into a license agreement with Arbutus Biopharma Corporation, or Arbutus. Certain terms of the agreement were modified by amendment in July 2018. Under the agreement, Arbutus grants us a worldwide, exclusive license to certain technology of Arbutus, including Arbutus' portfolio of proprietary and clinically validated LNP products and associated intellectual property, as well as technology transfer of Arbutus' manufacturing know-how. Under this agreement, we made an upfront payment of $5.0 million, which was included in research and development expenses during the year ended December 31, 2017. We also reimbursed Arbutus for materials and personnel costs totaling $0.2 million, which were included in research and development expenses during the same period. During the six months ended June 30, 2018, we reimbursed Arbutus for materials and personnel costs totaling $0.3 million. See "Business—Manufacturing and Process Development—License Agreement with Arbutus Biopharma Corporation" for additional information.

We expect our research and development expenses to increase substantially in the future as we advance our personalized cancer immunotherapy candidate into and through clinical studies and pursue regulatory approval. 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 successful development of our product candidates is highly uncertain. The actual probability of success for our product candidates may be affected by a variety of risks and uncertainties associated with drug development, including those set forth in the section of this prospectus titled "Risk Factors." At this time, we cannot reasonably estimate the nature, timing or costs required to complete the remaining development of our current or any future product candidates. As a result of these uncertainties, 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 product candidates.

Due to the early-stage nature of our personalized cancer immunotherapy programs, we do not track costs on a project-by-project basis. As our programs enter clinical studies, we intend to track the costs of each program.

General and Administrative Expenses

Our general and administrative expenses consist primarily of salaries and related costs, including payroll taxes, benefits, non-cash stock-based compensation and travel. Other general and

administrative expenses include legal costs of pursuing patent protection of our intellectual property, and professional service fees for auditing, tax and general legal services. We expect our general and administrative expenses to continue to increase in the future as we expand our operating activities and prepare for potential commercialization of our current and future product candidates, increase our headcount and support our operations as a public company, including increased expenses related to legal, accounting, regulatory and tax-related services associated with maintaining compliance with requirements of the Nasdaq Global Market and the SEC, directors and officers liability insurance premiums and investor relations activities. Allocated expenses consist of rent expenses related to our office and research and development facilities, depreciation and other allocated costs not otherwise included in research and development expenses.

Interest Income, Net

Interest income, net, consists primarily of interest income and investment income earned on our cash, cash equivalents and marketable securities, and interest expense on our lease financing obligation.

Results of Operations

Comparison of the Six Months Ended June 30, 2017 and 2018

The following table sets forth the significant components of our results of operations (in thousands):

	Six Months Ended June 30,		
	2017	2018	Change
Operating Expenses:			
Research and development	$ 11,855	$ 24,090	$ 12,235
General and administrative	2,840	4,852	2,012
Total operating expenses	14,695	28,942	14,247
Loss from operations	(14,695)	(28,942)	(14,247)
Interest income, net	138	94	(44)
Net loss	$(14,557)	$(28,848)	$(14,291)

Research and Development Expenses

Research and development expenses were $11.9 million for the six months ended June 30, 2017 compared to $24.1 million for the six months ended June 30, 2018. The increase of $12.2 million was primarily due to increases in personnel related expenses, expenses related to outside services and consultants, in-house laboratory supplies and consumables, and facilities expenses. Personnel related costs increased by $3.4 million, as a direct result of our increased research and development headcount. Outside services and consultants increased by $4.6 million for preclinical testing and contract manufacturing expansion. In-house expenses for laboratory supplies and consumables increased by $2.1 million, and reflect our increased research and development personnel. Facility related expenses increased by $2.2 million to accommodate our manufacturing expansion and increased research and development personnel.

General and Administrative Expenses

General and administrative expenses were $2.8 million for the six months ended June 30, 2017 compared to $4.8 million for the six months ended June 30, 2018. The increase of $2.0 million was primarily attributable to a $1.3 million increase in personnel related costs as we expanded our

headcount, and a $0.5 million increase in outside services for finance, recruiting and other professional services to support our ongoing operations. Facility related expenses increased by $0.1 million to accommodate our increased general and administrative personnel.

Comparison of the Years Ended December 31, 2016 and 2017

The following table sets forth the significant components of our results of operations (in thousands):

	Year Ended December 31,		
	2016	2017	Change
Operating Expenses:			
Research and development	$ 13,916	$ 35,691	$ 21,775
General and administrative	5,064	6,072	1,008
Total operating expenses	18,980	41,763	22,783
Loss from operations	(18,980)	(41,763)	(22,783)
Interest income, net	230	386	156
Net loss	$(18,750)	$(41,377)	$(22,627)

Research and Development Expenses

Research and development expenses were $13.9 million for the year ended December 31, 2016 compared to $35.7 million for the year ended December 31, 2017. The increase of $21.8 million was primarily due to increases in personnel related expenses, license payments, expenses related to outside services and consultants, in-house laboratory supplies and consumables, and facilities expenses. Personnel related costs increased by $6.7 million, as a direct result of our increased research and development headcount. License payments increased by $5.1 million primarily as a result of our $5.0 million up-front payment to Arbutus. Outside services and consultants increased by $5.1 million for preclinical testing, sample acquisition and manufacturing expansion. In-house expenses for laboratory supplies and consumables increased by $3.7 million, and reflect our increased research and development personnel. Facility related expenses increased by $1.1 million to accommodate our increased research and development personnel and manufacturing expansion.

General and Administrative Expenses

General and administrative expenses were $5.1 million for the year ended December 31, 2016 compared to $6.1 million for the year ended December 31, 2017. The increase of $1.0 million was primarily attributable to a $0.6 million increase in personnel related costs as we expanded our headcount, and a $0.5 million increase in outside services for patent, legal and professional services to support our ongoing operations.

Interest Income, Net

Interest income was $0.2 million for the year ended December 31, 2016 compared to interest income of $0.4 million for the year ended December 31, 2017. The income for both years represents interest and investment income from cash, cash equivalents and marketable securities. The increase of $0.2 million was due to a higher average cash, cash equivalents and marketable securities balance in the year ended December 31, 2017, partially offset by interest expense incurred on our lease financing obligation.

Liquidity and Capital Resources

Sources of Liquidity

From our inception through June 30, 2018, we have funded our operations primarily through private placements of our convertible preferred stock and have raised net cash proceeds of $165.9 million from the issuance of our convertible preferred stock. As of June 30, 2018, we had cash, cash equivalents and marketable securities of $64.5 million. Key financing and corporate milestones include:

- In September 2015, we raised net proceeds of $25.5 million from issuances of our Series A convertible preferred stock.
- In April 2016, we raised net proceeds of $35.7 million from additional issuances of our Series A convertible preferred stock.
- In September and October 2017, we raised net proceeds of $95.8 million from issuances of our Series B convertible preferred stock.
- In June, July and August 2018, we raised net proceeds of $21.0 million from issuances of our Series C convertible preferred stock, including $10.0 million from bluebird bio's investment.

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 personalized cancer immunotherapy candidate, including conducting ongoing research and development, preclinical studies and providing general and administrative support for these operations. We expect to continue to incur net operating losses for at least the next several years as we advance GRANITE-001, SLATE-001 and any future product candidates through clinical development, seek regulatory approval, prepare for and, if approved, proceed to commercialization, continue our research and development efforts and invest in our manufacturing facility.

Future Funding Requirements

We do not have any products approved for sale, and we have never generated any revenue from contracts with customers. We do not expect to generate any meaningful revenue unless and until we obtain regulatory approval of and commercialize any of our current and future product candidates and/or enter into collaboration agreements with third parties, and we do not know when, or if, either will occur. 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 current and future product candidates, and begin to commercialize any approved products. We are subject to all the risks typically related to the development of new product 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 tumor-specific immunotherapy product candidates or from collaboration or license agreements with third parties, if ever, we expect to finance our future cash needs through public or private equity offerings or debt financings. Additional capital may not be available on reasonable terms, if at all. If we are unable to raise additional capital in sufficient amounts or on terms acceptable to us, we may have to significantly delay, scale back or discontinue the development or commercialization of one or more of our current or future product candidates. If we raise additional funds by issuing equity or convertible debt securities, it could result in dilution to our existing stockholders and increased fixed payment

obligations. 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. If we incur indebtedness, we could become subject to covenants that would restrict our operations and potentially impair our competitiveness, such as limitations on our ability to incur additional debt, limitations on our ability to acquire, sell or license intellectual property rights and other operating restrictions that could adversely impact our ability to conduct our business. Additionally, any future collaborations we enter into with third parties may provide capital in the near term but we may have to relinquish valuable rights to our product candidates or grant licenses on terms that are not favorable to us. Any of the foregoing could significantly harm our business, financial condition and prospects.

Since our inception, we have incurred significant losses and negative cash flows from operations. We have an accumulated deficit of $90.5 million through June 30, 2018. We expect to incur substantial additional losses in the future as we conduct and expand our research and development activities. These conditions raise substantial doubt about our ability to continue as a going concern for a period of one year from the date of the issuance of our 2017 financial statements. The accompanying audited financial statements and unaudited interim condensed financial statements and related notes have been prepared assuming that we will continue as a going concern, which contemplates the realization of assets and the settlement of liabilities and commitments in the normal course of business. The audited financial statements and unaudited interim condensed financial statements and related notes do not reflect any adjustments relating to the recoverability and classification of assets or amounts and classification of liabilities that might be necessary if we are unable to continue as a going concern.

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 product candidates, we are unable to estimate the exact amount of our operating capital requirements. Our future capital requirements depend on many factors, including:

- the scope, progress, results and costs of developing our tumor-specific immunotherapy product candidates, and conducting preclinical studies and clinical trials, including our planned Phase 1/2 clinical trial of GRANITE-001, which we expect to initiate in the second half of 2018;
- the scope, progress, results and costs of conducting studies and clinical trials for our SLATE product candidate series, including the Phase 2 clinical trial for SLATE-001, which we expect to initiate in the second half of 2019;
- the timing of, and the costs involved in, obtaining regulatory approvals for our tumor-specific immunotherapy product candidates;
- the number and characteristics of any additional product candidates we develop or acquire;
- the timing and amount of any milestone, royalty or other payments we are required to make pursuant to any current or future collaboration or license agreements;
- the cost of manufacturing our tumor-specific immunotherapy product candidates we successfully commercialize, including the cost of scaling up our internal manufacturing operations;
- the cost of building a sales force in anticipation of product commercialization;
- the cost of commercialization activities, including building a commercial infrastructure, 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.

A change in the outcome of any of these or other variables with respect to the development of any of our current and future product candidates could significantly change the costs and timing associated with the development of that product candidate. Furthermore, our operating plans may change in the future, and we will need additional funds to meet operational needs and capital requirements associated with such operating plans.

Cash Flows

The following table sets forth a summary of the primary sources and uses of cash (in thousands):

	Year Ended December 31,		Six Months Ended June 30,	
	2016	2017	2017	2018
Cash used in operating activities	$(15,292)	$(34,971)	$(13,038)	$(27,066)
Cash (used in) provided by investing activities	(32,127)	(33,252)	6,870	17,363
Cash provided by financing activities	35,946	95,812	14	8,237
Net (decrease) increase in cash and cash equivalents	$(11,473)	$ 27,589	$ (6,154)	$ (1,466)

Cash Used in Operating Activities

During the six months ended June 30, 2018, cash used in operating activities was $27.1 million, which consisted of a net loss of $28.8 million, adjusted by non-cash charges of $2.9 million and cash used due to changes in our operating assets and liabilities of $1.1 million. The non-cash charges consisted primarily of depreciation and amortization expense of $1.7 million and stock-based compensation of $1.2 million. The change in our operating assets and liabilities was primarily due to a decrease of $1.4 million in accounts payable and other accrued liabilities as a result of accrued bonus payments and vendor payments made during the first half of the year, and a decrease of $0.5 million in prepaid expenses and other assets.

During the six months ended June 30, 2017, cash used in operating activities was $13.0 million, which consisted of a net loss of $14.6 million, adjusted by non-cash charges of $1.3 million and cash used due to changes in our operating assets and liabilities of $0.2 million. The non-cash charges consisted primarily of depreciation and amortization expense of $0.8 million and stock-based compensation of $0.5 million. The change in our operating assets and liabilities was primarily due to a decrease of $0.4 million in accrued and other liabilities, and an increase of $0.2 million in prepaid expenses and other assets.

During the year ended December 31, 2017, cash used in operating activities was $35.0 million, which consisted of a net loss of $41.4 million, adjusted by non-cash charges of $2.9 million and cash provided by changes in our operating assets and liabilities of $3.5 million. The non-cash charges consisted primarily of depreciation and amortization expense of $1.8 million and stock-based compensation of $1.1 million. The change in our operating assets and liabilities was primarily due to an increase of $4.3 million in accounts payable and accrued liabilities. Our accrued liabilities increased due to employee bonuses and general business expenses, reflective of our increased headcount and expenses. This was partially offset by an increase of $0.4 million in prepaid expenses and other current assets for prepaid research and development being conducted by third-party service providers.

During the year ended December 31, 2016, cash used in operating activities was $15.3 million, which consisted of a net loss of $18.8 million, adjusted by non-cash charges of $1.6 million and cash provided by changes in our operating assets and liabilities of $1.9 million. The non-cash charges consisted primarily of depreciation and amortization expense of $0.9 million and stock-based compensation of $0.6 million. The change in our operating assets and liabilities was primarily due to an increase of $2.1 million in deferred rent liability primarily associated with a tenant improvement allowance from our landlord, and an increase of $0.8 million in accounts payable and accrued liabilities. Our accrued liabilities increased due to employee bonuses and general business expenses, reflective of our increased headcount and expenses. This was partially offset by an increase of $0.9 million in prepaid expenses and other assets primarily associated with prepayments made for ongoing research and development being conducted by third-party service providers and security deposits for our leased facilities.

Cash Used in Investing Activities

During the six months ended June 30, 2018, cash provided by investing activities was $17.4 million, which consisted of $20.2 million in proceeds from the maturity of marketable securities, offset by $2.9 million of capital expenditures to purchase property and equipment.

During the six months ended June 30, 2017, cash provided by investing activities was $6.9 million, which consisted of $26.9 million in proceeds from the maturity of marketable securities, offset by $16.3 million of purchases of marketable securities and $3.4 million of capital expenditures to purchase property and equipment.

During the year ended December 31, 2017, cash used in investing activities was $33.3 million, which consisted of $63.2 million of purchases of marketable securities, $11.5 million of capital expenditures to purchase property and equipment, offset by $41.5 million in proceeds from the maturity of marketable securities.

During the year ended December 31, 2016, cash used in investing activities was $32.1 million, which consisted of $48.0 million of purchases of marketable securities, $7.0 million of capital expenditures to purchase property and equipment, offset by $22.9 million in proceeds from the maturity of marketable securities.

Cash Provided by Financing Activities

During the six months ended June 30, 2018, cash provided by financing activities was $8.2 million, which primarily consisted of $8.9 million in net proceeds from the issuances of shares of our Series C convertible preferred stock, offset by $0.8 million paid for deferred offering costs associated with preparation for our initial public offering.

During the six months ended June 30, 2017, cash provided by financing activities was $14,000, which consisted of proceeds from the purchase of common stock under our equity incentive plan.

During the year ended December 31, 2017, cash provided by financing activities was $95.8 million, which primarily consisted of net proceeds from the issuances of shares of our convertible preferred stock.

During the year ended December 31, 2016, cash provided by financing activities was $35.7 million, which primarily consisted of net proceeds from the issuances of shares of our convertible preferred stock.

Since our inception through June 30, 2018, we have raised an aggregate of approximately $166.0 million through the issuance and sale of shares of our convertible preferred stock, net of $0.4 million in issuance costs, which we have used to fund our operations. During 2018, aggregate net proceeds from

our sale of Series C convertible preferred stock were $21.0 million including our July and August 2018 sales of Series C convertible preferred stock. During 2017, net proceeds from our sale of Series B convertible preferred stock were $95.8 million. During 2016, net proceeds from our sale of Series A convertible preferred stock were $35.7 million.

Off-Balance Sheet Arrangements

We have not entered into any off-balance sheet arrangements, as defined under SEC rules.

Contractual Obligations and Commitments

The following table summarizes our contractual obligations as of December 31, 2017 (in thousands):

	Payments Due by Period				
	Total	Less than 1 Year	1-3 Years	3-5 Years	More than 5 Years
Operating leases(1)	$ 8,410	$ 1,642	$3,451	$2,921	$ 396
Lease financing obligation(1)	5,768	708	1,612	1,711	1,737
Total obligations	$14,178	$ 2,350	$5,063	$4,632	$ 2,133

(1) See Note 6 to our financial statements included elsewhere in this prospectus.

We are party to license agreements pursuant to which we have in-licensed various intellectual property rights. The license agreements obligate us to make certain milestone payments related to achievement of specified events, as well as royalties in the low-single digits based on sales of licensed products. None of these events had occurred as of December 31, 2017, and no royalties were due from the sales of licensed products. The table above does not include any milestone or royalty payments to the counterparties to these agreements as the amounts, timing and likelihood of such payments are not known. See Note 7 to our financial statements for additional information.

In September 2017, we entered into a contract research and development agreement with a third party CRO to provide research, analysis and antibody samples to further the development of our personalized immunotherapy candidate in the treatment of cancer. Under the agreement, we paid an upfront payment of $0.5 million to the CRO. The upfront payment has been capitalized and will be recognized as research and development expense using the straight-line method over the term of the agreement, which is one year. We are also obligated to pay up to $0.4 million to the CRO upon the completion of certain phases of the research services. These costs will be recorded to research and development expense over the expected period of each phase of the research services. We are also obligated to pay the CRO certain milestone payments of up to $36.4 million on achievement of specified events. None of these events had occurred as of December 31, 2017. However, we are unable to estimate the timing or likelihood of achieving the milestones and, therefore, any related payments are not included in the table above.

Critical Accounting Policies and Use of Estimates

This discussion and analysis of financial condition and results of operation is based on our financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States, or GAAP. The preparation of financial statements requires management to make estimates and judgments that affect the reported amounts of assets and liabilities and

disclosures of contingent assets and liabilities as of the date of the financial statements and the reported amounts of expenses during the reporting period. On an ongoing basis, management evaluates its estimates, including those related to preclinical study trial accruals, fair value of assets and liabilities, and the fair value of common stock and stock-based compensation. Management bases its estimates on historical experience and on various other market-specific and relevant assumptions that management believes to be reasonable under the circumstances. Actual results could differ from those estimates.

While our significant accounting policies are more fully described in the notes to our audited financial statements included elsewhere in this prospectus, we believe that the following accounting policies are critical to the process of making significant judgments and estimates in the preparation of our financial statements and understanding and evaluating our reported financial results.

Research and Development Expenses

We record research and development expenses to operations as incurred. Research and development expenses represent costs incurred by us for the discovery and development of our product candidates and the development of our technology and include: internal research and development expense, including employee-related expenses, including salaries, benefits, travel and non-cash stock-based compensation expense; external research and development expenses incurred under arrangements with third parties, such as CROs, preclinical testing organizations, CMOs, academic and non-profit institutions and consultants; license fees; and other expenses, which include direct and allocated expenses for laboratory, facilities and other costs. Costs to develop our technologies are recorded as research and development expense unless the criteria to be capitalized as internal-use software costs is met.

As part of the process of preparing financial statements, we are required to estimate and accrue expenses. We record the estimated expenses of research and development activities conducted by third-party service providers based upon the estimated amount of services provided within research and development expense in the statements of operations and comprehensive loss. These services include the conduct of preclinical studies, contract manufacturing activities and consulting services. 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. If the costs have been prepaid, this expense reduces the prepaid expenses in the balance sheet, and if not yet invoiced, the costs are included in accrued liabilities in the balance sheet. These costs are a significant component of our research and development expenses. We record amortization of prepaid expenses or accrued expenses for these costs based on the estimated amount of work completed and in accordance with agreements established with these third parties.

Costs for certain research and development activities are recognized based on an evaluation of the progress to completion of specific tasks. We estimate the amount of work completed through discussions with internal personnel and external service providers as to the progress or stage of completion of the services and the agreed-upon fee to be paid for such services. We make significant judgments and estimates in determining the accrued balance in each reporting period. As actual costs become known, we adjust our accrued estimates. Although we do not expect our estimates to be materially different from amounts actually incurred, our understanding of the status and timing of services performed may vary from our estimates and could result in us reporting amounts that are too high or too low in any particular period. Our accrued expenses are dependent, in part, upon the receipt of timely and accurate reporting from external CROs and other third-party service providers. To date, we have not experienced material differences between our accrued expenses and actual expenses.

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. We assess whether such contingent consideration meets the definition of a derivative.

Stock-Based Compensation

We measure stock-based compensation expense for stock options granted to our employees and directors on the date of grant and recognize the corresponding compensation expense of those awards over the requisite service period, which is generally the vesting period of the respective award. We account for stock-based compensation arrangements with non-employee consultants using a fair value approach. The estimated fair value of unvested options granted to non-employee consultants is remeasured at each reporting date through the date of final vesting. As a result, the noncash charge to operations for nonemployee options with vesting conditions is affected in each reporting period by changes in the estimated fair value of our common stock. Forfeitures of awards are estimated based on historical forfeiture experience and the experience of other companies in the same industry. The estimate of forfeitures will be adjusted over the service period to the extent that actual forfeitures differ, or are expected to differ, from prior estimates.

We estimate the fair value of stock options granted to our employees and directors on the grant date, and the resulting stock-based compensation expense, using the Black-Scholes option-pricing model. The Black-Scholes option-pricing model requires the use of subjective assumptions which determine the fair value of stock-based awards. These assumptions include:

- *Expected Term*. Our expected term represents the period that our stock options 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 we do not have sufficient historical data to use any other method to estimate expected term.
- *Expected Volatility*. As there has been no public market for our common stock to date, and as a result we do not have any trading history of our common stock, expected volatility is estimated based on the average volatility for comparable publicly traded biopharmaceutical companies over a period equal to the expected term of the stock option grants. The comparable companies are chosen based on their similar size, stage in the life cycle or area of specialty.
- *Risk-Free Interest Rate*. The risk-free interest rate is based on the U.S. Treasury zero coupon issues in effect at the time of grant for periods corresponding with the expected term of the stock option grants.
- *Expected Dividend Yield*. We have never paid dividends on our common stock and have no plans to pay dividends on our common stock. Therefore, we use an expected dividend yield of zero.

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

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: our most recently available valuations of our common stock by an unrelated third party; 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; the risk inherent in the development of our products; 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.

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 June 30, 2018 was approximately $20.9 million, based on the assumed initial public offering price of $14.00 per share, the midpoint of the range set forth on the cover page of this prospectus, of which approximately $5.3 million is related to vested options and approximately $15.6 million is related to unvested options.

Leases, Deferred Rent and Lease Financing Accounting

We rent our office space and facilities under non-cancelable operating lease agreements and recognize related rent expense on a straight-line basis over the term of the lease. Our lease

agreements contain rent holidays, scheduled rent increases and renewal options. Rent holidays and scheduled rent increases are included in the determination of rent expense to be recorded ratably over the lease term. We do not assume renewals in its determination of the lease term unless they are deemed to be reasonably assured at the inception of the lease. We begin recognizing rent expense on the date that we obtain the legal right to use and control the leased space. Deferred rent consists of the difference between cash payments and the recognition of rent expense on a straight-line basis for the buildings we occupy.

Funding of leasehold improvements by our landlord is accounted for as a tenant improvement allowance and recorded as current and non-current deferred rent liabilities and amortized on a straight- line basis as a reduction of rent expense over the term of the lease.

In certain arrangements, we are involved in the construction of improvements to buildings we are leasing. To the extent we are involved with the structural improvements of the construction project or take construction risk, we are considered to be the owner of the building and related improvements for accounting purposes during the construction period. Therefore, we record the fair value of the building subject to the lease within property and equipment on the balance sheet, plus the amount of building improvements incurred and funded by us and/or the landlord as of the balance sheet date. We also record a corresponding lease financing obligation on our balance sheet representing the amounts financed by the lessor for the building and lessor financed improvements. Lessor financed improvement incentives due but not yet received are recorded as prepaid expense and other current assets on the balance sheet.

Once construction is completed, we consider the requirements for sale-leaseback accounting treatment, including evaluating whether all risks of ownership have been transferred back to the landlord, as evidenced by a lack of our continuing involvement in the leased property. If we conclude the arrangement does not qualify for sale-leaseback accounting treatment, the building and improvements remain on our balance sheet and are subject to depreciation and assessment of impairment. We bifurcate our lease payments into a portion allocated to the lease financing obligation and a portion allocated to the parcel of land on which the building has been built. The portion of the lease payments allocated to the land is treated for accounting purposes as operating lease payments, and therefore is recorded as rent expense in the statements of operations and comprehensive loss. The portion of the lease payments allocated to the lease financing obligation is further bifurcated into a portion allocated to interest expense and a portion allocated to reduce the lease financing obligation.

The interest rate used for the lease financing obligation represents our estimated incremental borrowing rate at the inception of the lease, adjusted to reduce any built-in loss. The initial recording of these assets and liabilities is classified as non-cash investing and financing items, respectively, for purpose of the statements of cash flows.

The most significant estimates used by management in accounting for the lease financing transaction and the impact of these estimates are as follows:

- *Incremental borrowing rate*. We estimate our incremental borrowing rate as the rate we would have incurred to borrow, based on our credit quality at the inception of the lease over a similar term, the funds necessary to purchase the leased building subject to the financing lease transaction. The incremental borrowing rate is used in determining allocating our rental payments between interest expense and a reduction of the outstanding lease financing obligation.
- *Land capitalization rate*. The land capitalization rate is the rate of return on the land underlying the lease properly considering expected income that the land would be expected to generate. The land lease capitalization rate is estimated using comparable market data for land

capitalization rates for similar properties. The land capitalization rate is used in determining allocating our rental payments between interest expense and a reduction of the outstanding lease financing obligation.

- *Fair value of leased building and underlying land*. The fair value of a leased building and underlying land subject to the lease financing transaction is based on comparable market data for similar properties as of the lease inception date. The fair value of the underlying land is used in determining allocating our rental payments between interest expense and a reduction of the outstanding lease financing obligation.

In March 2017, we entered into a non-cancelable lease for 42,620 square feet of office, cleanroom, and laboratory support manufacturing space in Pleasanton, California. Subsequently, in April 2017, we took possession of the space. In connection with the lease, we received a tenant improvement allowance of $1.2 million from the landlord for the costs associated with the design, development and construction of tenant improvements for the Pleasanton facility building. The scope of the tenant improvements did not qualify under the lease accounting guidance as “normal tenant improvements” and we were the deemed owner of the leased building during the construction period for accounting purposes. In November 2017, construction on the facility was substantially completed and the leased property was placed into service. We determined that the completed construction project did not qualify for sale-leaseback accounting due to the collateral held by the landlord in the form of a letter of credit and will instead be accounted for as a financing transaction. The leased building for the Pleasanton facility and related improvements remains on our balance sheet as of June 30, 2018 and rental payments associated with the lease have been allocated to operating lease expense for the ground underlying the leased building and principal and interest payments on the lease financing obligation.

JOBS Act

We are an emerging growth company under the JOBS Act. As an emerging growth company, we may delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have nonetheless irrevocably elected not to avail ourselves of this exemption and, as a result, upon completion of this offering we will adopt new or revised accounting standards on the relevant dates on which adoption of such standards is required for other public companies.

We will remain an emerging growth company until the earliest of (1) the last day of the fiscal year following the fifth anniversary of the consummation of this offering, (2) the last day of the fiscal year in which we have total annual gross revenue of at least $1.07 billion, (3) the last day of the fiscal year in which we are deemed to be a “large accelerated filer” as defined in Rule 12b-2 under the 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.

Quantitative and Qualitative Disclosures About Market Risk

Interest Rate Sensitivity

We are exposed to market risk related to changes in interest rates. We had cash, cash equivalents and marketable securities of $64.5 million as of June 30, 2018, which consisted primarily of money market funds and marketable securities, largely composed of investment grade, short-term fixed income 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. To achieve our objectives, we maintain a portfolio of investments in a variety of securities of high credit quality and short-term duration, according to our board-approved investment charter.

Our investments are subject to interest rate risk and could fall in value if market interest rates increase. A hypothetical 10% relative change in interest rates during any of the periods presented would not have had a material impact on our financial statements.

Recent Accounting Pronouncements

See Note 2 to our audited financial statements and unaudited interim condensed financial statements and related notes included elsewhere in this prospectus.

BUSINESS

Overview

We are an immuno-oncology company developing tumor-specific cancer immunotherapies to fight multiple cancer types. Our approach harnesses the natural power of a patient's own immune system to recognize short tumor-specific peptide sequences presented on cancer cells, referred to as tumor-specific neoantigens, or TSNA, in order to destroy tumor cells. We expect to initiate a Phase 1/2 clinical trial of our first personalized immunotherapy product candidate, GRANITE-001, in the second half of 2018 for the treatment of multiple common solid tumors. Our tumor-specific immunotherapy treatment is built on two key pillars—first, our proprietary Gritstone EDGE™ platform, which gives us a superior ability to predict, from a routine tumor biopsy, the TSNA that are presented on a patient's tumor cells; and second, our ability to develop and manufacture a potent immunotherapy utilizing patients' TSNA to drive the patient's immune system to attack and destroy tumors. Our tumor-specific immunotherapy portfolio consists of our personalized immunotherapy product candidate, GRANITE-001, which is manufactured uniquely for each patient, and our off-the-shelf immunotherapy product candidate series, SLATE, which is designed for selected subsets of patients with common tumor neoantigens. Our tumor-specific immunotherapy candidates are designed to fit easily into a community oncology setting and to be administered in earlier lines of treatment, in combination with checkpoint inhibitors to further drive a robust T cell response, rather than only in refractory or relapsed cancers.

Immuno-oncology represents one of the most significant advances in the history of cancer treatment. In 2014, the first checkpoint inhibitor was approved and today, despite only a modest breadth of efficacy across patients, this class of therapies is predicted to reach over $32 billion in combined global sales by 2022. However, because checkpoint inhibitors work through relatively non-specific stimulation of occasional, pre-existing, tumor-specific T cells, they are effective in only a subset of patients, with objective responses (substantial tumor shrinkage) observed in 0-20% of all patients with cancer of the lung, breast, prostate, colon/rectum and ovary (the major lethal solid tumor types). Many patients appear not to possess meaningful numbers of T cells that recognize their tumor (so-called "cold" tumors). We believe the path to broader immuno-oncology efficacy and more meaningful clinical responses resides in the *de novo* generation of new, potent, tumor-specific T cell responses.

The first pillar of our tumor-specific cancer immunotherapy approach is our understanding of TSNA and the application of our artificial intelligence based, proprietary Gritstone EDGE platform to predict the presence of a patient's unique TSNA on tumor cells. While there are frequently hundreds of mutations in the DNA of a tumor cell, only approximately 1% of these mutations are actually transcribed, translated and processed into a unique "non-self" peptide sequence that is presented on the surface of tumor cells and can therefore be recognized by the patient's own T cells. Furthermore, these rare TSNA are almost all unique to each individual patient's tumor. Current technologies cannot predict the presence of TSNA with sufficient accuracy to design a therapy that is likely to be effective. The Gritstone EDGE platform consists of proprietary machine learning models that use DNA/RNA sequence data derived from a patient's tumor biopsy to predict which mutations will generate TSNA most likely to be presented on the tumor cell surface. Applying our EDGE platform to sequence data from human tumors, we have shown a nine-fold improvement in the accuracy of prediction with our platform compared to publicly available approaches.

The second pillar of our tumor-specific cancer immunotherapy approach is our ability to develop and manufacture a patient-specific therapeutic to direct a robust T cell response to those TSNA predicted to be presented on the patient's tumor. Our tumor-specific immunotherapy candidates, GRANITE-001 and SLATE-001, comprise a sequential immunization of a viral prime and RNA boosts delivered by intramuscular injection, which we refer to as our heterologous prime-boost. In our

GRANITE-001 product candidate each of the viral prime and RNA boost immunizations contain a patient-specific set of predicted TSNA, whereas the viral prime and RNA boost in our SLATE product candidate series contains a fixed TSNA cassette that is designed for the subset of patients who carry these antigens. Grounded in traditional infectious disease vaccine immunology, this two-step immunization utilizes a prime and a boost to educate the patient's T cells to detect TSNA and destroy tumor cells. In non-human primate models, we have demonstrated a profound and specific CD8+ and CD4+ T cell response to antigens administered in this way.

Our personalized immunotherapy process begins with a routine tumor biopsy from the patient. We utilize our in-house sequencing capabilities on the tumor sample and then apply our proprietary EDGE platform to derive a set of predicted TSNA likely to be presented on the patient's tumor. Using these TSNA, we design a highly potent personalized immunotherapy candidate containing the relevant neoantigens to be administered by simple intramuscular injection. We have designed each of our tumor-specific immunotherapy candidates such that oncologists will not have to alter their treatment practices, and we believe this will extend the utility of our medicines into the community oncology setting and not limit their use to scarce centers of excellence. We believe that as a result of its design, our tumor-specific immunotherapy candidate has the potential to expand the efficacy of immunotherapy into broader patient populations.

We intend to initiate a first-in-human Phase 1/2 clinical trial of our first personalized immunotherapy product candidate, GRANITE-001, in the second half of 2018, evaluating it in the treatment of common solid tumors, including metastatic non-small cell lung cancer, or NSCLC, and gastroesophageal, bladder and microsatellite stable, or MSS, colorectal cancers, in each case in combination with checkpoint inhibitors. The Phase 1 portion of our Phase 1/2 trial will seek to establish a dose for further investigation in Phase 2 and to evaluate safety, tolerability and, importantly, immunogenicity of our lead product candidate. We will seek to further evaluate efficacy and safety in the Phase 2 cohort expansion portion in several common solid tumor types. In July 2018, we entered into a clinical trial collaboration and supply agreement with Bristol-Myers Squibb Company to evaluate the safety and tolerability of GRANITE-001 in combination with OPDIVO (nivolumab) and in combination with OPDIVO plus YERVOY (ipilimumab), in patients with advanced solid tumors.

We will follow the initiation of our personalized clinical program with a Phase 2 clinical trial of SLATE-001, our first off-the-shelf, TSNA-directed immunotherapy product candidate in the second half of 2019. SLATE-001 utilizes the same heterologous prime boost approach as GRANITE-001 but contains a fixed cassette with TSNA that are shared across a subset of cancer patients rather than a cassette unique to an individual patient, providing us with an off-the-shelf alternative to our personalized manufactured product, GRANITE-001. SLATE-001 has the benefit of being readily available for rapid initiation of therapy, and is less expensive to manufacture than a personalized product. Early analyses suggest that while each such shared neoantigen may only be found in less than 2% of patients with a particular tumor type, our heterologous prime-boost can contain at least 20 of these TSNA, which we believe will result in the off-the-shelf product having an addressable population of approximately 10-15% of patients within common solid tumor types such as colorectal cancer and lung cancer. Our off-the-shelf product candidates are specific to a particular tumor type, and the TSNA module is fixed for each product. As a result, the essential aspect to the utilization of the off-shelf-product candidate is the ability to accurately identify patients whose tumors contain at least one of the TSNA represented within the off-the-shelf product candidate. Today, this can be simply achieved by screening the patient's tumor using commercially-available genomic screens and identifying the patient's HLA type from blood with a standard clinical assay.

We are also leveraging our expertise in cancer genomics and our tumor antigen discovery platform to identify novel peptide sequences (not mutated) that may be shared across common tumor types (tumor-specific shared antigens), which we believe are likely to have value as targets to direct T

cells onto tumors specifically. Shared antigen targets enable us to opportunistically partner or develop additional therapeutic approaches to redirect T cells onto tumors using these highly specific targets. Additional approaches include modifying the receptors of the patient's own T cells to help them recognize tumor targets (adoptive T cell therapy) and/or using small adapter proteins that have two recognition arms—one for tumors and one for T cells (bispecific antibodies). In August 2018, we announced our first collaboration supporting this strategy with bluebird bio, Inc., or bluebird bio, whereby we will identify up to ten tumor-specific targets and associated T cell receptors for therapeutic application within bluebird bio's cell therapy platform.

The ability to control the manufacturing of a high-quality tumor-specific immunotherapy products, and scale production if early data are positive, is critical for efficient clinical development and commercialization. We have invested significant resources in our Cambridge, Massachusetts sequencing lab and our Pleasanton, California manufacturing facility to address these needs and position ourselves to control the critical steps in the production of our tumor-specific immunotherapy candidates.

To deliver on the promise of our novel therapeutic approach, we have assembled a highly experienced management team with focused expertise in each of our core disciplines of cancer genomics, immunology and vaccinology, clinical development, regulatory, and biomanufacturing from several leading biotechnology companies, including Clovis Oncology, Inc., Pfizer Inc., Genentech, Inc. and Foundation Medicine, Inc. Our co-founder Dr. Andrew Allen brings experience as a co-founder and Chief Medical Officer of Clovis Oncology, Inc., with prior experience in various leadership roles at Pharmion Corporation and Chiron Corporation, where he worked on Proleukin (IL-2), the first cancer immunotherapy. The scientific advisory board includes selected experts in relevant disciplines, including Dr. Timothy Chan (Memorial Sloan Kettering Cancer Center) and Dr. Naiyer Rizvi (Columbia University Medical Center) who together first demonstrated that TSNA are key T cell targets in cancer patients responding to checkpoint inhibitor therapy, as well as Dr. James Gulley (National Cancer Institute) who is an international expert in cancer immunotherapy with a focus on vaccines.

Our Strategy

We have assembled a team of industry leaders, each possessing specific expertise that allows us to build and deploy our proprietary EDGE platform to predict tumor-specific T cell targets and deliver personalized cancer immunotherapies to patients. Our goal is to eradicate cancer by initially developing personalized immunotherapies that focus on the unique and individual nature of a patient's tumor. Our strategy to achieve this includes the following key components:

- ***Rapidly advance GRANITE-001, our lead product candidate, in multiple clinical settings, with the objective of generating a significant CD8+ T cell response to tumor-specific neoantigens.*** GRANITE-001 is our first personalized immunotherapy product candidate. It is engineered to elicit a significant T cell response to selected antigens in humans (particularly CD8+ T cell responses) based upon extensive clinical experience with many different vectors in the realm of infectious disease. We have studied these clinical data closely and applied key learnings to the design and development of our immunotherapy platform. Our IND for GRANITE-001 was cleared by the FDA in September 2018, and we intend to initiate a first-in-human Phase 1/2 trial of our heterologous prime-boost regimen in combination with checkpoint inhibitors in the second half of 2018. Upon completion of the Phase 1 portion of the trial, we intend to demonstrate proof of concept in the Phase 2 portion of the trial, which will consist of single-arm cohort expansions in "cold" tumors (such as MSS colorectal cancer) where checkpoint inhibitors alone have very low efficacy, and in randomized cohorts in typically more inflamed tumors (such as lung, gastric or bladder cancer), where checkpoint inhibitors are known to have some activity but recurrence remains expected.

- ***Invest in our Gritstone EDGE platform and maximize its utility across modalities***. Using contemporary sequencing and machine learning approaches, we have developed our EDGE platform to accurately predict the antigenic landscape of a tumor that allows for its select targeting with personalized immunotherapy. The EDGE platform utilizes proprietary machine learning models and an extensive dataset of over a million HLA-presented peptides from over 300 human tumor and matched normal tissue specimens. We are initially applying the platform to develop multiple formats of personalized cancer immunotherapy candidates—including our heterologous prime-boost immunization containing TSNA (our lead program) as well as "off-the-shelf" therapies targeting shared tumor-specific antigens—in order to maximize the utility of our prediction capabilities across modalities. We intend to continually make investments to improve the EDGE platform's prediction capabilities in order to develop more efficacious medicines. Genomic and immune response data from our clinical trials will serve to further validate and refine our machine learning platform.
- ***Build upon the discoveries from our Gritstone EDGE platform to rapidly move SLATE-001, our shared-TSNA product candidate, into multiple clinical settings where shared neoantigens may have utility***. This includes—but will not be limited to—KRAS-driven tumors such as colorectal cancer, pancreatic ductal carcinoma and adenocarcinomas of the lung. We plan to submit an IND for SLATE-001 in the second half of 2019, and start Phase 2 clinical trials if and when data from GRANITE-001 have confirmed acceptable safety and immunogenicity of our prime-boost vaccine platform, together with Phase 2 dosing recommendations.
- ***Continue to build our in-house manufacturing capabilities to maintain the highest controls on quality and capacity.*** We believe the speed, quality, reliability and scalability of our manufacturing capabilities will be a core competitive advantage to our clinical development and commercial success, and we have invested extensively in building our own manufacturing facilities. We intend to internalize the majority of the manufacturing steps to drive down both cost and production time, as well as establish full control over intellectual property and product quality. We believe that operating our own manufacturing facility will provide us with enhanced control of material supply for both clinical trials and the commercial market, will enable the more rapid implementation of process changes, and will allow for better long-term margins.
- ***Move tumor-specific immunotherapy into community oncology settings and earlier lines of treatment.*** We are designing our tumor-specific immunotherapy product candidates to fit into a community oncology setting, where the vast majority of cancer patients are treated. We start with routine tumor biopsies, employ our EDGE platform to create a personalized immunotherapy, and administer it as an intramuscular injection. This approach is designed to enable oncologists to integrate our tumor-specific immunotherapy product candidates into their treatment practices without requiring a change in the current treatment paradigm. We believe this strategy has the potential to extend the use of our medicines into the community setting, enabling rapid trial execution, and expanding commercial use beyond limited centers of research excellence. Additionally, we intend to develop our tumor-specific immunotherapy product candidates in earlier lines of treatment, where recent clinical data with other forms of immunotherapy suggest efficacy is likely to be stronger, versus being only used in highly refractory or late-stage cancer patients. This intention is enabled by new liquid biopsy techniques whereby the reliable detection of minute amounts of tumor-derived DNA in blood can be used both to stratify patients (identify those at high risk of disease recurrence or progression even if imaging data suggests eradication of disease) and to offer a surrogate endpoint for more rapid assessment of therapeutic efficacy versus traditional clinical endpoints.
- ***Enter into collaborations to realize the full potential of our platform.*** The breadth of our EDGE platform enables its application to a variety of therapeutic formats, including cell therapy, bispecific antibodies and other areas where shared tumor (neo)antigens could be impactful to

cancer treatment. We intend to form collaborations around certain aspects of our platform, such as shared tumor antigens, as we believe we will benefit from the resources and capabilities of other organizations in the manufacture, development and commercialization of such diverse immunotherapies. Aligned with this strategy, our strategic collaboration with bluebird bio involves use of our EDGE platform to identify tumor-specific targets and associated T cell receptors for clinical application within bluebird bio's cell therapy platform.

Immuno-Oncology and Tumor-Specific Neoantigens

Immuno-oncology is an emerging field of cancer therapy that aims to activate the immune system to enhance and/or create anti-cancer immune responses, as well as to overcome the immuno-suppressive mechanisms that cancer cells have developed against the immune system. It is now well established that the immune system can, on occasion, successfully eliminate all tumor cells, leading to long-term benefit, even cures, in some patients with solid tumors. The primary challenge in immuno-oncology is to extend this useful biology to many more cancer patients, and to do so earlier in the treatment paradigm. Understanding which cells of the immune system are critical, what they recognize on tumor cells, and why they are typically absent or ineffective in cancer patients is core to overcoming this challenge. T cells are the vital foot soldiers in the immune attack upon cancer cells. T cells have evolved to recognize "foreign" markers on cells infected by viruses, and DNA mutations, which are a hallmark of cancer, often lead to the generation of such "foreign" markers, which are different from normal or "wild-type" proteins. Exploitation of this cancer cell vulnerability using new biological and computational tools lies at the heart of our lead program.

Critical Importance of T Cells

The most critical components of the immune response to tumors are T cells, white blood cells which mature in the thymus gland. T cells can be classified into two major subsets, CD4+ T cells and CD8+ T cells, based on expression of CD4 or CD8 markers on the surface of the T cell. CD4+ T cells (also referred to as helper T cells) provide help to the immune response by secreting cytokines that enhance the activation, expansion, migration and effector functions of other types of immune cells. CD8+ T cells (also referred to as cytotoxic or "killer" T cells) can directly attack and kill cells they recognize as abnormal. An activated CD8+ T cell attacks and kills a target cell when the T cell encounters its target and the T cell receptor, or TCR, recognizes and binds to a specific protein complex on the target cell. This protein complex is comprised of a short peptide (fragment of a protein) bound to a platform molecule called, in humans, the human leukocyte antigen, or HLA, complex. This HLA/peptide complex is the antigen recognized by a T cell receptor.

One of the primary functions of T cells is to detect and eliminate normal cells that have been infected by a virus. To accomplish this, T cells are "trained" in the thymus early in life to differentiate between HLA/peptide complexes that are "self" derived (an HLA presenting a peptide derived from a normal self-protein) and those that are "foreign" or "non-self" (an HLA presenting a peptide derived from a non-self-protein such as a viral protein). When the immune system develops early in life, T cells that recognize self peptides are eliminated in the thymus to avoid the risk of an auto-immune reaction, in a process called central tolerance. T cells that recognize a non-self peptide are nurtured and sent from the thymus to patrol the body, looking for evidence of non-self markers on cells, such as virally infected cells. Because cancer cells carry DNA mutations, which may alter protein/peptide sequences, tumor cells can also present non-self peptides bound to HLA platforms on the cell surface and, as a result, can be recognized and destroyed by T cells. In this case, the DNA mutation in a tumor creates a novel non-self peptide sequence, which, if it can be recognized by a TCR, is called a tumor-specific neoantigen, or TSNA.

Tumor-Specific Neoantigens

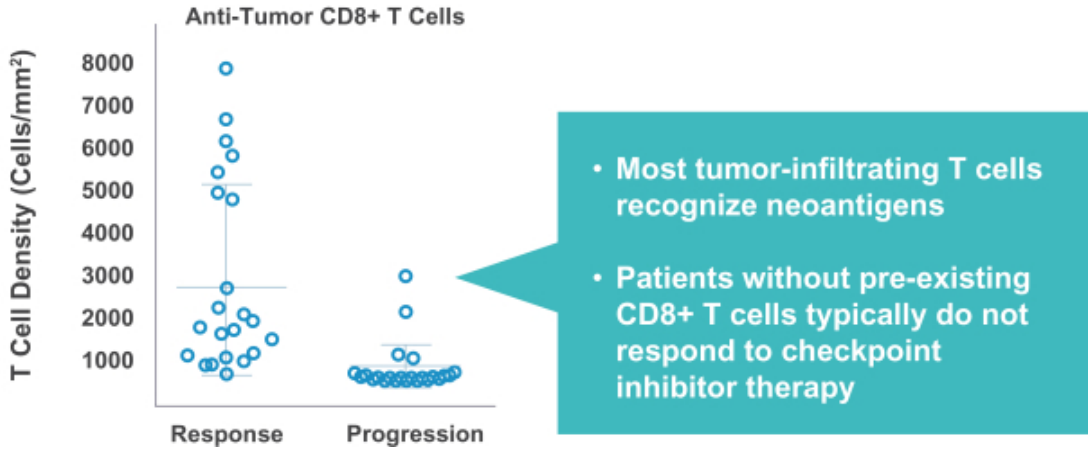
The notion that T cells can recognize TSNA on the surface of tumor cells is well established. It is only recently, however, that tools and techniques have been developed to test this idea in humans. Two advances proved critical. First, the advent of checkpoint inhibitors provided cohorts of cancer patients who developed immune responses that destroyed their tumors, leading to clinical responses that could be studied at a molecular level. Second, the development of fast, inexpensive DNA and RNA sequencing techniques provided the ability to sequence and catalog tumor DNA mutations that might give rise to neoantigens. T cells from cancer patients who had responded well to checkpoint inhibitors could then be screened against candidate neoantigens to see if the patient data supported the hypothesis that T cell recognition of TSNA could kill tumor cells effectively.

In 2014 and 2015, two of our co-founders, Dr. Timothy Chan and Dr. Naiyer Rizvi, brought these two concepts together in papers demonstrating that melanoma and lung cancer patients who responded to checkpoint inhibitor therapies had developed T cells that recognized TSNA (Snyder et al., *The New England Journal of Medicine* (2014); Rizvi et al., *Science* (2015)). Further evidence from Dr. Steven Rosenberg (Center for Cancer Research) and Dr. Ton Schumacher (Netherlands Cancer Institute) demonstrated that in patients with solid tumors, T cells could be found infiltrating tumors which were specific for TSNA, and could be expanded and used therapeutically to kill tumor cells (Stevanovic et al., *Science* (2017); Schumacher and Schreiber, *Science* (2015)). Together, this body of research suggests that in patients with common solid tumors, T cells can selectively destroy tumor cells through recognition of TSNA.

Immune Evasion

While some patients do respond to checkpoint inhibitor therapy with the mobilization of T cells that recognize TSNA and kill tumor cells, such patients are in the minority (0-20% for most common solid tumors (Kiy et al., *Febs Letters* (2013)). Research into this clinical observation has shown that patients who respond to checkpoint inhibitors typically have, prior to therapy, inflamed tumors that contain infiltrating T cells (particularly cytotoxic CD8+ T cells) and that express markers of immune activation.

Figure 1. Response in Melanoma Patients Treated with Anti-PD-1 Antibody (Pembrolizumab) is Associated with Anti-Tumor T Cell Infiltration of the Tumor at Baseline*



* Adapted from Tumeh et al., *Nature* (2014)

While the immune systems of these patients have recognized their tumors through the recognition of TSNA, the tumor-specific T cells have been shut down or inactivated in the tumor. Checkpoint inhibitors are capable of “re-activating” these T cells, but most patients fail to respond to checkpoint inhibitor treatment because tumor-specific T cells are absent from the tumor due to tumor “evasion” of the patient’s immune response. We believe it is highly likely these patients have so-called “naïve” T cells in their bodies that have the ability to recognize the TSNA on tumor cells but that have not yet been activated. As a result, immune recognition, or the activation of the naïve T cells to the tumor antigen, and the generation of a large memory tumor-specific T cell response has not (yet) taken place.

Our Therapeutic Hypothesis

TSNA offer extremely attractive therapeutic targets for T cell-directed therapy because they are non-self and tumor-specific, and have been shown to function as the key T cell targets in humans responding to immune checkpoint inhibitor therapies. The fact that TSNA are non-self has several key implications:

- Every person’s existing, internal TCR repertoire of naïve T cells should be able to recognize TSNA presented by any tumor that arises within the body.
- A potent, focused T cell response against TSNA should be limited to an attack on the tumor, with minimal destruction of normal cells (off-tumor toxicity).
- TSNA are key targets for an effective human anti-tumor immune response, which means TSNA can be used therapeutically.

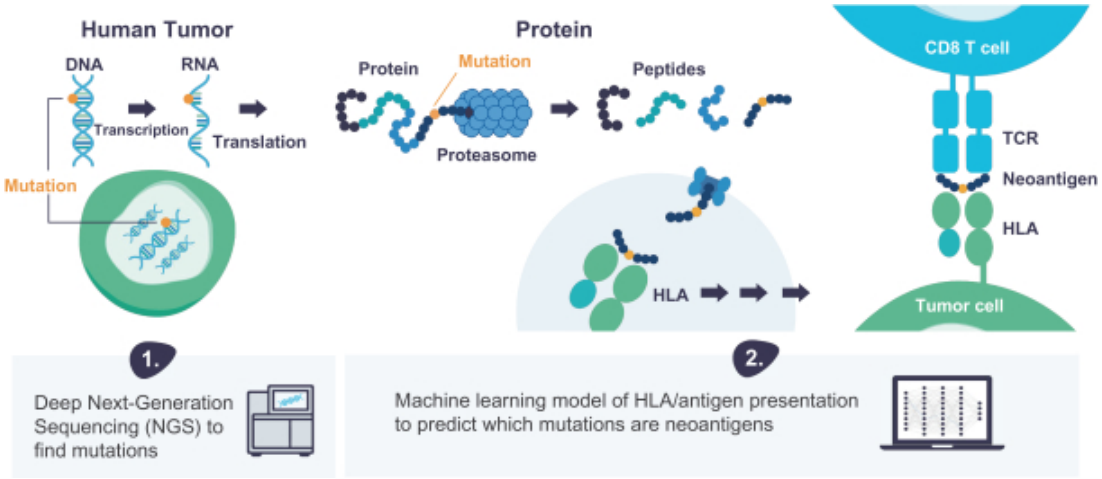
Our fundamental therapeutic hypothesis is that patients with common solid tumors often have TSNA, but the tumors have successfully evaded the patient’s immune system. Our goal is simple—to activate a potent TSNA-targeted T cell response using routine therapeutic interventions.

Our Gritstone EDGE Platform

Design of Our EDGE Platform

Neoantigens in tumors are created via a multi-step process starting with mutation in the cancer DNA, and leading to mutated peptides presented by the HLA on the surface of tumor cells. To select neoantigens for immunotherapy for cancer patients, we created our EDGE platform, which captures the essential elements of neoantigen biology via a combination of laboratory assays and computational analyses. The two steps of our EDGE platform prediction process are shown in Figure 2 below.

Figure 2. EDGE Platform



EDGE Step 1—Mutation Identification

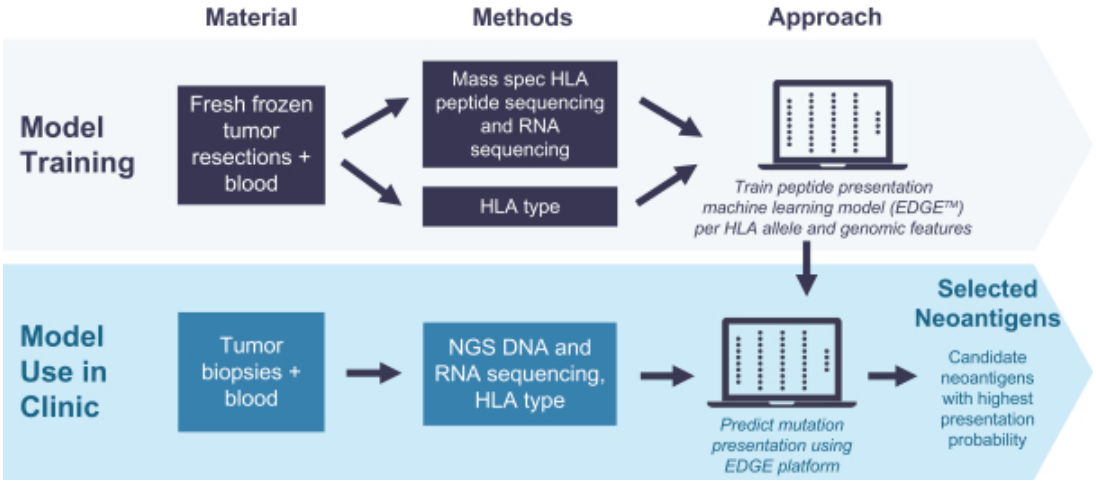
Identification of neoantigens requires accurate identification of tumor mutations and measurement of their expression levels in patient cancer specimens. To achieve this, we have built an in-house, cGMP-compliant, next-generation sequencing laboratory to perform deep sequencing of tumor DNA and RNA, as well as sequencing of the patient's normal DNA. This first step in the EDGE process analyzes routine, core needle, formalin-fixed paraffin embedded tumor biopsies and identifies tens to hundreds of tumor mutated sequences.

EDGE Step 2—Neoantigen Prediction

Only a small fraction of tumor mutated sequences are expected to result in actual neoantigens presented on the surface of tumor cells. This fraction may be as low as approximately 1% of all mutations. To accurately predict which neoantigens will be presented on the surface of tumor cells, we have generated a large dataset of HLA/peptides from human tumor and matched normal tissue specimens. Our process isolates and sequences HLA/peptides, using an immunopeptidomic mass spectrometry approach. We also analyze tumors for level of RNA expression of all genes. Our dataset now comprises more than 300 resected tissue specimens, spanning lung, colon, ovarian and gastric cancers from patients of various ancestries to ensure broad coverage of diverse patient HLA types. Each tumor specimen yields thousands of HLA/peptides and the total dataset has now grown to over one million HLA-presented peptides.

We use a subset of these and selected published peptide datasets to train a machine-learning model for neoantigen prediction in our EDGE platform. The model learns the critical DNA/RNA sequence features and other factors like RNA expression that lead to a greater likelihood of peptide presentation by the HLA. Our EDGE model analyzes mutated peptides in turn and calculates the probability that the peptide will be presented by the patient's HLA on the surface of the tumor cell, or HLA-presented peptides. We prioritize mutations with the highest probability of presentation for inclusion in that patient's personalized immunotherapy. The EDGE model training and clinical application are illustrated in Figure 3 below.

Figure 3. EDGE Model Training and Application



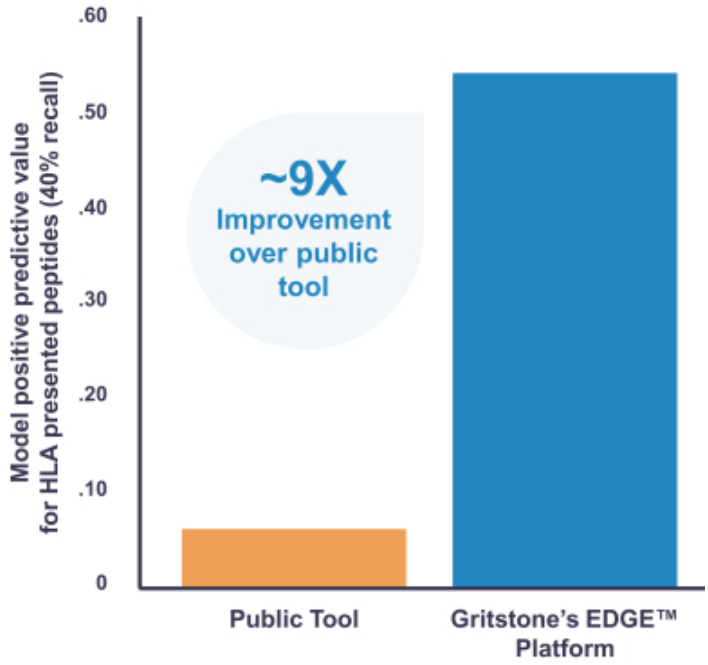
EDGE Neoantigen Prediction Performance

Accurate TSNA prediction is critical for our personalized immunotherapy, and we have evaluated the prediction performance of our EDGE model in two ways. First, we assessed the ability of the EDGE model to predict HLA presented peptides. We then tested whether the ability to predict HLA presented peptides translated into the ability to predict which mutations give rise to neoantigens with tumor-relevant T cell responses in patients.

Prediction of HLA-Presented Peptides

To assess EDGE model performance for prediction of HLA presented peptides, we used five tumor samples with HLA/peptides measured by mass-spectrometry that were not included in model training. For these test specimens, we predicted which peptides are likely to be presented on the tumor cell surface. We evaluated the quality of our predictions by calculating the positive predictive value, or PPV, which is the fraction of predicted peptides that were detected on the tumor HLA. As a benchmark, we compared performance of our prediction to that of publicly available tools (such as MHCflurry or NetMHC). Averaged over the test samples, our EDGE platform achieved a PPV of 54%, representing a nine-fold improvement over standard methods, as shown in Figure 4 below. We believe that TSNA selected by our EDGE platform have a much higher likelihood of being useful targets for immunization than those selected using industry standard methods.

Figure 4. Performance of EDGE Model for HLA/Peptide Prediction

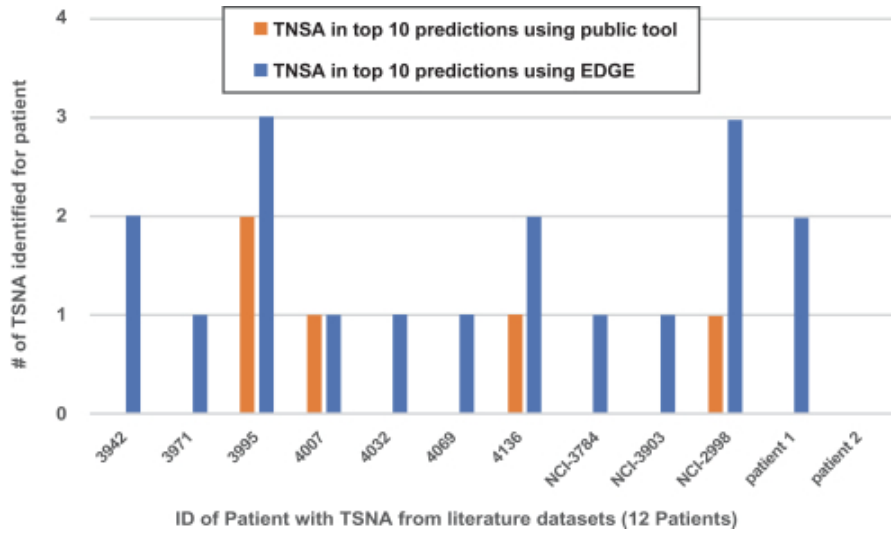


Prediction of TSNA with T Cell Responses in Patients

To show that our prediction of HLA/peptide presentation enables prediction of tumor-specific neoantigens that can be targeted by T cells in patients, we assembled a test set of independently validated, published neoantigens. The dataset comprised four separate studies in the literature, with over 2,000 mutations from 17 patients with melanoma, gastro-intestinal cancer and breast cancer, comprehensively analyzed for anti-tumor immune response using either tumor-infiltrating lymphocytes, or TILs, or activated T cells from the blood. In these studies, 12 of the 17 patients exhibited pre-existing T cell responses, with 26 neoantigens identified. Applying our EDGE model to select the top ten mutations for each patient from DNA/RNA sequence alone, we found that 11 out of the 12 patients with tumor-specific neoantigens had at least one neoantigen identified. In contrast, a standard approach identified true neoantigens for only four patients.

These results are illustrated in Figure 5 below.

Figure 5. EDGE Platform Identification of TSNA for Immunization in 12 Patients

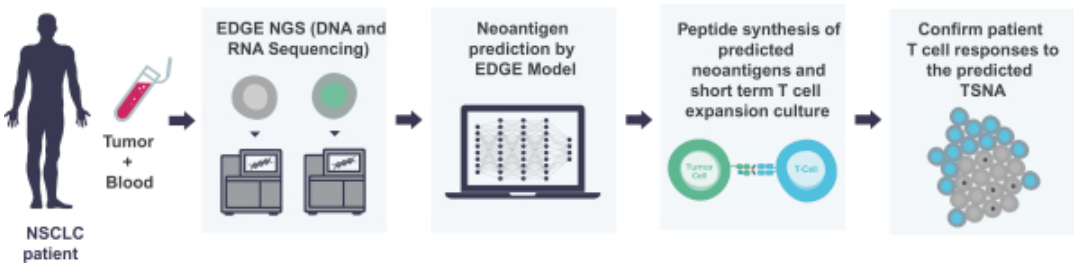


Applying our EDGE model to select the top twenty mutations for each patient, we found that a majority (19 of 26, 73%) of the tumor-specific neoantigens were included.

Ongoing EDGE Platform Validation

To further validate our EDGE platform's ability to identify TSNA in patients, we are also analyzing peripheral blood obtained from NSCLC patients receiving PD-(L)1 checkpoint inhibitors in an observational clinical study, wherein T cell recognition of predicted TSNA is assessed. This process is shown in Figure 6 below.

Figure 6. Gritstone Analysis of Neoantigen T Cell Responses in NSCLC Patients



Initial data from this study have shown that our EDGE platform identified TSNA-specific T cells in a majority (5 of 9, 56%) of NSCLC patients tested, with an average of two peptides recognized per patient in patients with detectable TSNA-specific T cells.

Genomic and immune response data from our clinical trials will serve to further validate and refine our EDGE platform.

Our Personalized Tumor-Specific Neoantigen Therapy

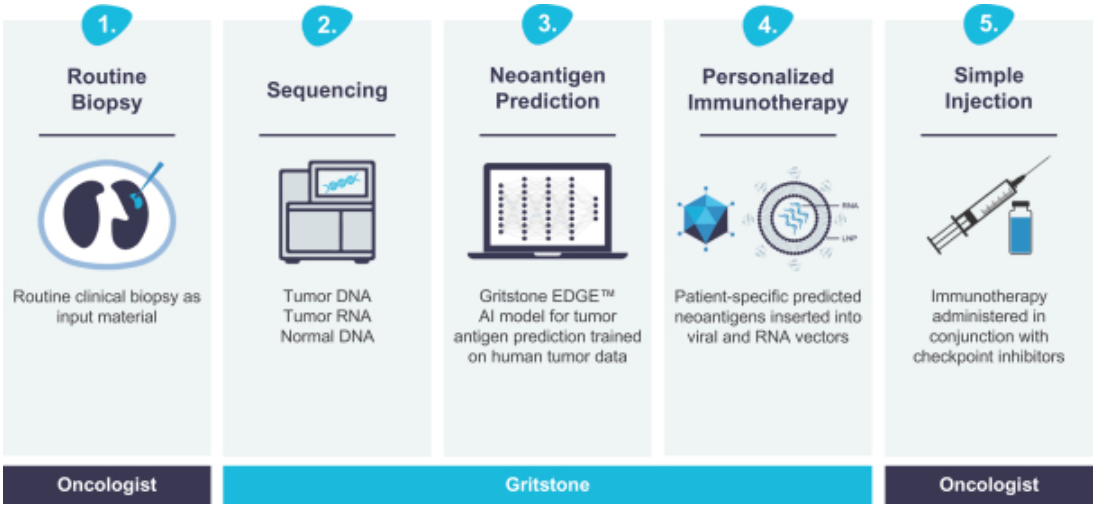
Overview

Our therapeutic hypothesis is that treatment with personalized TSNA-containing vectors combined with immune checkpoint inhibitor therapy will generate *de novo*, or augment existing, selective, TSNA-specific T cell response, unleashing the natural power of the immune system on tumor cells, potentially improving efficacy without a substantial increase in off-tumor toxicity. Our personalized immunotherapy candidate is designed to fit easily into a community oncology setting and to be administered in earlier lines of treatment rather than only in refractory or relapsed cancers. We have designed our personalized immunotherapy candidate such that oncologists will not have to alter their treatment practices, and we believe that this will extend the utility of our medicines into the community setting and not limit their use to scarce centers of excellence. We believe that as a result of its design, our personalized immunotherapy candidate has the potential to expand the efficacy of immunotherapy into broader patient populations.

Our Personalized Immunotherapy Process

Our personalized immunotherapy process leverages our proprietary EDGE platform to predict the TSNA that will be presented on a patient's tumor, allowing us to create a patient-specific heterologous prime-boost immunotherapy that is designed to elicit a potent anti-tumor T cell response. This process is outlined in Figure 7 below.

Figure 7. Gritstone's Personalized Immunotherapy Process



Step 1—Routine Biopsy

Most cancer care takes place in a community oncologist's office rather than an academic center, and we believe products should ideally be designed to be usable in these settings. We are designing and developing our product candidate for administration early in the cancer treatment paradigm, particularly where disease burden is low and a cure is perceived to be more likely. Such early care is also heavily weighted to the community oncologist setting. Consequently, our product development process necessarily begins with a routine biopsy to obtain a specimen of the tumor with a standard needle biopsy performed by an oncologist or radiologist.

Step 2—Sequencing

We then apply customized deep-sequencing and bioinformatic processes in-house to the patient's tumor biopsy specimen and blood to derive high-quality DNA and RNA sequence information and identify tens to hundreds of tumor mutations.

Step 3—Neoantigen Prediction

This tumor mutation sequence data is then entered into our proprietary EDGE platform. Our evolving artificial intelligence platform then predicts the TSNA most likely to be presented on the tumor cell surface.

Step 4—Personalized Immunotherapy

We assemble the predicted TSNA into a patient-specific "cassette." The cassette is incorporated into our heterologous prime-boost personalized immunotherapy, which is manufactured and filled into a vial.

Step 5—Simple Injection

The vial is then shipped to the oncologist's office where it is delivered to the patient by simple intramuscular injection. Our personalized immunotherapy candidate is designed to be administered in combination with standard checkpoint inhibitors to drive large numbers of TSNA-specific T cells to the tumor site, where they remain active.

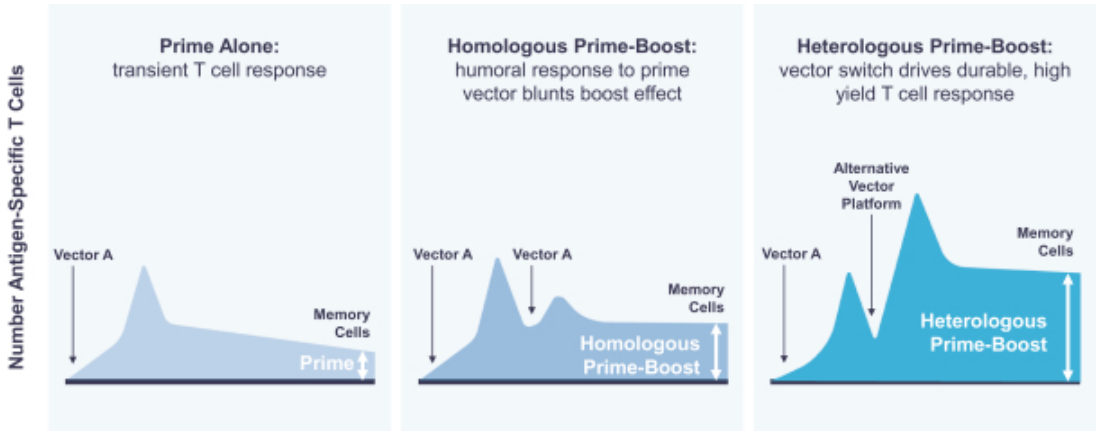
Our Lead Product Candidate (GRANITE-001)

Our therapeutic goal is to drive a large and sustained T cell response against all TSNA presented on a patient's tumor. Cancer patients may have pre-existing memory T cells directed against some of the TSNA delivered within the neoantigen cassette in their personalized immunotherapy. Boosting such pre-activated TSNA-specific T cells requires less antigen-specific stimulation than priming naïve T cells that have not yet been activated against their respective neoantigen. Importantly, early clinical data in the field suggest that for the majority of TSNA within the immunotherapy cassette, priming naïve T cells will be required to mount a large immune response. Priming naïve T cells is a multi-step process that requires a potent antigen delivery platform able to deliver cassette neoantigens in a highly immunogenic manner.

Human infectious disease vaccine experience has taught us that delivering antigens within an adenoviral vector can prime a substantial T cell response consisting of cytotoxic CD8+ T cells and CD4+ T-helper cells. We believe an adenoviral vector is one of the most potent antigen-delivery platforms to prime naïve T cells. Peptide vaccination has not been able to accomplish this goal.

We believe that continued immune pressure upon the tumor is likely necessary to prevent immune escape by the tumor and drive a durable clinical response. To sustain high numbers of tumor-specific T cells, the same tumor-specific antigen can be given in a different vector from that used to prime, as a boost immunization. This heterologous prime-boost concept has been shown to activate and sustain high antigen-specific T cell responses, as shown in Figure 8 below.

Figure 8. Comparison of Heterologous Prime-Boost with Homologous Prime-Boost and Prime Alone



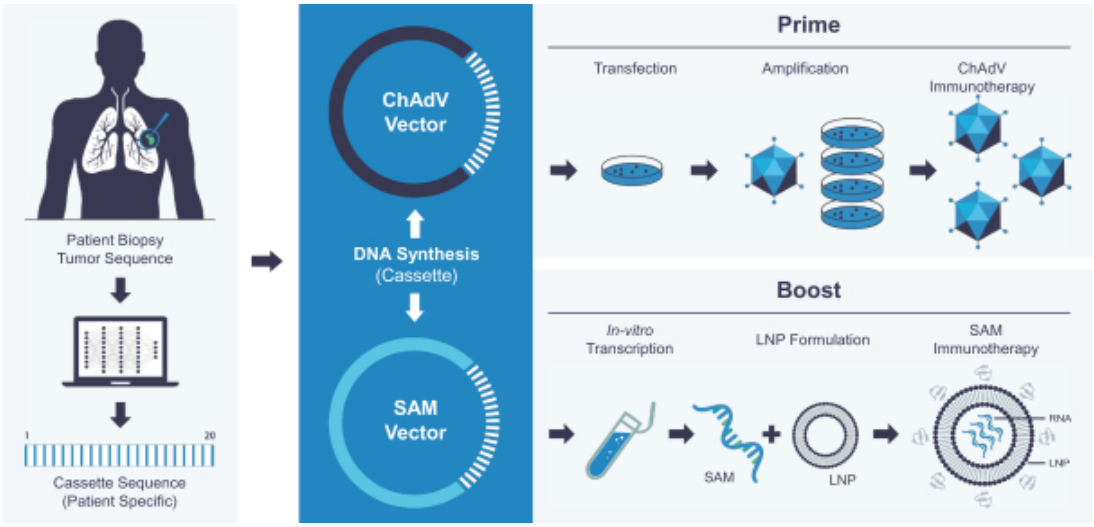
Our Construct

Our personalized immunotherapy candidate consists of (1) a prime vector and (2) a boost vector, both of which contain (3) the same personalized "cassette" containing the top-20 predicted patient-specific neoantigens:

1. *Prime Vector.* The prime vector is a chimpanzee adenovirus, or ChAdV. There is extensive clinical experience with the ChAdV vector platform in infectious disease studies over the last 20 years demonstrating that ChAdV vectors are well tolerated and consistently generate rapid and substantial CD4+ and CD8+ T cell responses that have been shown, in a Phase 2b randomized controlled trial, to protect humans against infections such as malaria.
2. *Boost Vector.* The boost is a self-amplifying mRNA, or SAM, formulated in a lipid nanoparticle, or LNP. A SAM vector comprises RNA that encodes the selected target antigens, such as TSNA, plus an RNA polymerase. After injection into muscle and uptake into host cells, the RNA is translated into protein, and the RNA polymerase starts to replicate the originally injected source RNA, amplifying the number of copies within the cells dramatically. This leads to production of large amounts of the delivered target antigens. During the RNA replication, RNA structures that are foreign to a normal cell are generated, which drives a strong danger signal to surrounding immune cells, triggering an early immune reaction (innate immune response). The presence of large quantities of antigen in an immune-stimulating environment drives profound antigen-specific T cell responses (adaptive immune responses). This approach is fundamentally distinct from using mRNA, which does not possess these attractive properties.
3. *Personalized Cassette.* Within each of the two vectors used for the prime and boost immunizations, we include a cassette that is the only personalized component of the process. This cassette contains the top-20 predicted patient-specific TSNA. The same neoantigen cassette is used for both prime and boost vectors for each patient. We have designed the cassette to contain 20 TSNA based on several considerations, including TSNA prediction performance, potential immune competition and manufacturing factors.

The prime and boost immunotherapy construction is depicted in Figure 9 below.

Figure 9. Prime and Boost Immunotherapy Construction



Our current manufacturing process includes Gritstone and qualified third-party contract manufacturing organization, or CMO, sites that are designed to operate under cGMP requirements. The manufacturing process starts when tumor samples are received by our sequencing lab in Cambridge, Massachusetts. Our EDGE platform is used to select 20 appropriate genetic sequences for neoantigen manufacturing, and a qualified CMO inserts these genetic sequence cassettes into standard plasmid backbones. The ChAdV vector, which encodes the genetic sequence in the cassette, is sent to our Pleasanton, California facility for manufacturing the prime immunotherapy, and the SAM vector, which encodes the genetic sequence in the cassette, is sent to a qualified CMO for manufacturing the boost immunotherapy. This end-to-end process, from biopsy receipt to shipment of the personalized heterologous prime-boost immunotherapy to the clinical site for patient administration, will initially take approximately 16-20 weeks. This period is consistent with the stated production and release times for other personalized immunotherapy approaches (mRNA or peptide) described in the literature and, importantly, acceptable for deployment in early treatment of cancer patients in the adjuvant setting where clinical urgency is lower as compared to the relapsed or refractory late stage setting in which adoptive T cell therapy may be utilized.

The ability to control the manufacturing of a high-quality personalized immunotherapy product, and scale production if early data are positive, is critical for efficient clinical development and commercialization. Our goal is to internalize the majority of the manufacturing steps to drive down both cost and production time, as well as establish full control over intellectual property and product quality. We have invested significant resources in our Cambridge, Massachusetts sequencing lab and our Pleasanton, California manufacturing facility to address these needs and to position us to control the critical steps in our personalized immunotherapy product production.

Our Preclinical Non-Human Primate Data

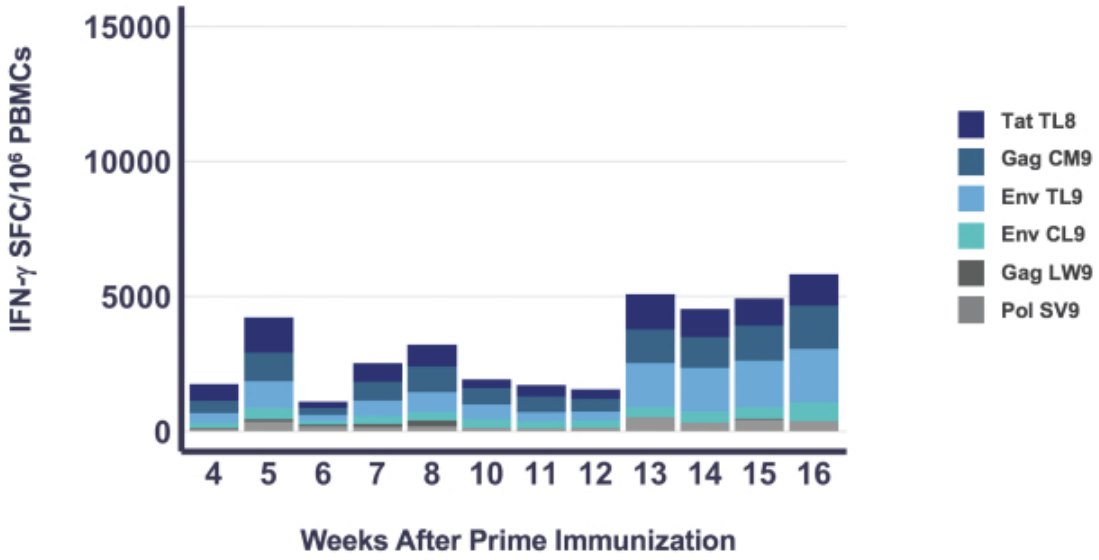
Our goal is to drive a large and sustained TSNA-specific T cell response to control tumor growth and/or eradicate the tumor. Published data from adoptive T cell therapies provide preliminary guidance on clinically efficacious T cell levels in patients. These studies suggest that T cell levels of approximately 10,000 antigen-specific T cells per milliliter of blood measured in patients four weeks post-infusion indicate clinical benefit.

We have focused our preclinical program on assessing the potency of our immunotherapy candidate in non-human primates, or NHPs, because published data suggests that NHPs' immune responses to our immunotherapy candidate will better predict human data than murine models due to the comparative similarities between NHP and human immune systems. Preclinical and clinical studies have shown that T cell responses induced in NHPs were predictive of responses in human clinical trials—the same relative potency was observed for different vaccinations in NHPs and humans. In these studies, a small 1.5- to three-fold decrease in absolute T cell response was measured when comparing NHPs to humans. By contrast, murine models, while simple, have been shown to be less likely to predict outcomes of cancer immunotherapy in humans, believed to be due to the many differences in immune system components between humans and mice.

We have completed one preclinical study and are currently conducting another preclinical study in NHPs to demonstrate the ability of our heterologous prime-boost immunotherapy approach to prime a potent immune response against the non-self model antigens delivered within the cassette. We constructed ChAdV and SAM vectors encoding viral, non-self model antigens because NHPs do not have tumors or TSNA. We collected blood samples, which include T cells, throughout the studies pre- and post-immunization to measure the kinetics and level of T cell responses specifically directed against the model antigens. T cells were isolated from the blood and the number of antigen-specific T cells are reported as spot forming cells, or SFCs, per 10^6 peripheral blood mononuclear cells, or PBMCs, which is a measure of the number of antigen-specific cytokine secreting cells (typically T cells) in an NHP. CD8+ T cells comprise one of the critical fractions of T cells quantified with this T cell assay.

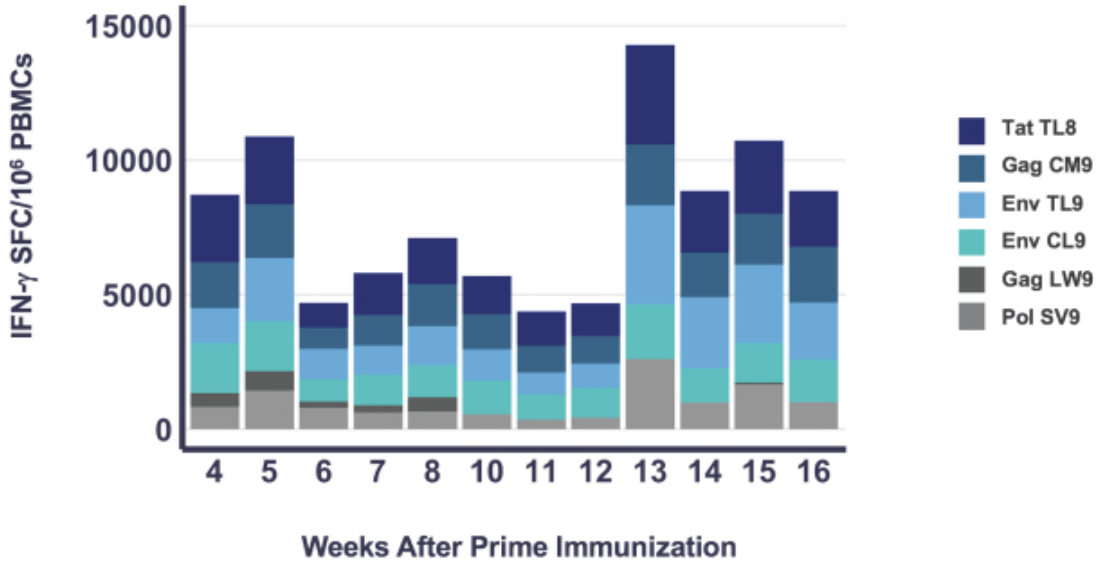
In our experiments, the NHPs immunized with ChAdV showed a rapid priming of T cell responses that peaked 14-21 days after immunization with combined immune responses to all six non-self model antigens of approximately 2,000 SFCs per 10^6 PBMCs. These data are consistent with immune responses reported in the literature for adenoviral vectors. Administration of a SAM boost, four weeks after the ChAdV prime, increased T cell responses approximately two-fold, with combined immune responses to all six non-self model antigens of approximately 4,000 SFCs per 10^6 PBMCs measured seven days after the SAM boost, as shown in Figure 10 below. These T cell responses increased further after a second SAM boost at week 12, to around 5,000 SFCs per 10^6 PBMCs and were maintained at these levels for four weeks without further boosts. T cell responses to each individual antigen were broadly comparable in magnitude for four of the six antigens administered. We anticipate that this breadth of T cell response against multiple antigens delivered within the cassette will be essential for the control of tumors within a patient.

Figure 10. Immune Response in NHPs to Heterologous Prime-Boost Immunotherapy Without Co-Administration of Checkpoint Inhibitors



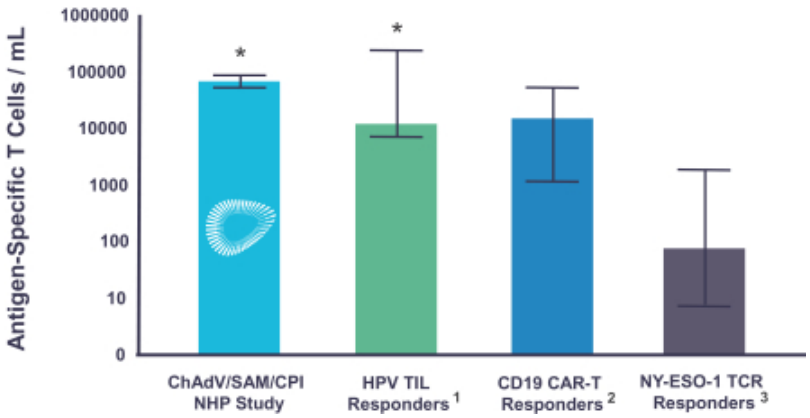
The literature suggests that the addition of immune checkpoint inhibitors increases T cell expansion when combined with a vaccine. To study this concept, we administered our immunization to NHPs in combination with the checkpoint inhibitor anti-CTLA-4. Co-administration of anti-CTLA-4 monoclonal antibodies, or mAb, with the ChAdV immunotherapy significantly increased ChAdV priming with a combined T cell response of approximately 7,500 SFCs per 10^6 PBMCs observed four weeks after immunization, as shown in Figure 11 below. The SAM boost administered four weeks after the prime immunization with anti-CTLA-4, increased the antigen specific T cell response further, reaching T cell levels greater than 10,000 SFCs per 10^6 PBMCs. A second SAM boost in combination with the anti-CTLA-4 antibody given eight weeks after the first boost immunization expanded the antigen-specific T cells further to peak levels reaching greater than 14,000 SFCs per 10^6 PBMCs one week after the boost which were maintained at levels between 9,000-10,000 SFCs per 10^6 PBMCs for several weeks. Thus, our heterologous prime-boost immunotherapy approach induced T cell numbers between 5,000-14,000 SFC per 10^6 PBMCs that were sustained over 16 weeks.

Figure 11. Immune Response in NHPs to Heterologous Prime-Boost Immunotherapy in Combination with Checkpoint Inhibitor Anti-CTLA-4



In order to compare the number of robust antigen-specific T cells induced by our heterologous prime-boost approach in NHPs directly to the literature data from adoptive T cell therapies, we converted our units of SFCs per 10^6 PBMCs to units of CD8+ T cells per milliliter of blood and plotted them against the T cell data from various clinical studies (which we also converted, where necessary, to T cells per milliliter of blood). One milliliter of blood is estimated to contain around three million PBMCs. The comparative data suggest that the antigen-specific CD8+ T cell numbers reached with our immunotherapy in NHPs (shown in the leftmost bar of Figure 12 below) is in the range of the T cell levels achieved in cancer patient clinical responders to adoptive T cell therapies (shown in the three rightmost bars in Figure 12 below), even when anticipating a 1.5- to three-fold decrease in the number of T cells induced in humans versus NHPs (as noted in the literature). Such substantial T cell numbers have not, to our knowledge, been reached with a therapeutic cancer vaccine in clinical studies to date. Furthermore, in addition to priming numerically substantial T cell responses against the cassette neoantigens, our immunotherapy regimen has been shown to induce T cells of high functional quality in NHPs, with a cytokine secretion profile seen in highly functional and cytotoxic T cells.

Figure 12. Comparison of Number of T Cells Induced by Our Immunotherapy in NHPs to Number of T Cells Observed in Clinical Responders to Adoptive T Cell Therapies

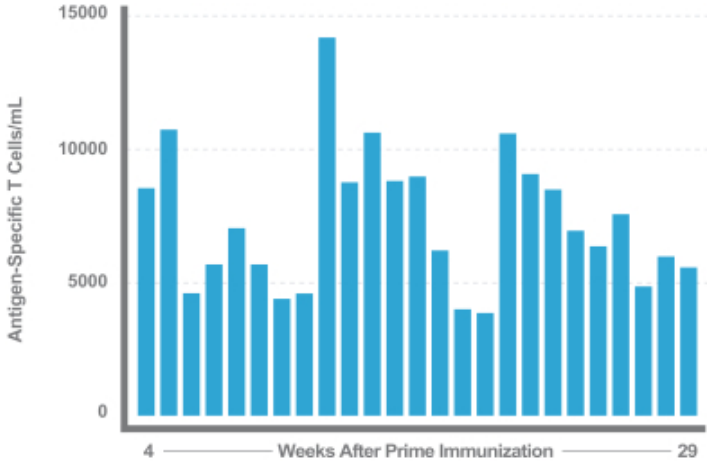


Estimated from ELISpot data
Bars represent min. and max. values

Data derived from:
1. Stevanovic et al., J Clin Onc. (2015)
2. Lee et al., Lancet (2015)
3. Robbins et al., Clin Cancer Res. (2015)

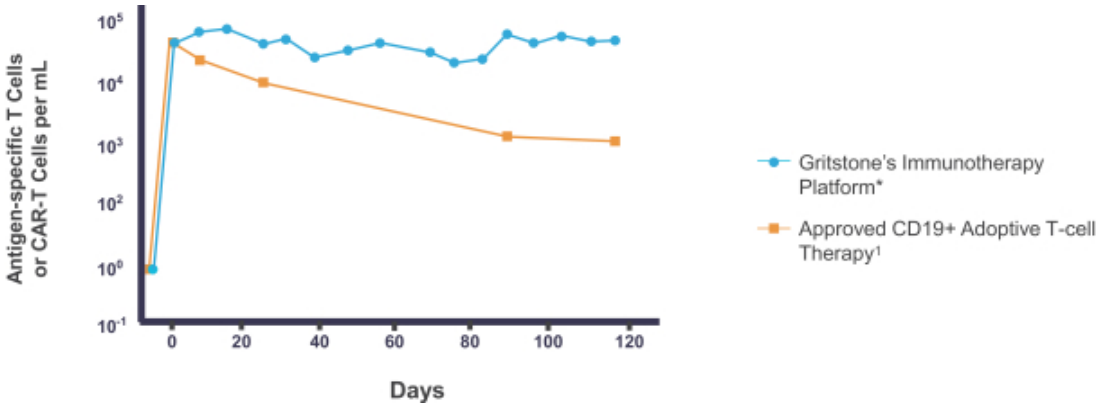
We believe that continued immune pressure upon the tumor is likely necessary to prevent immune escape by the tumor and consequently drive a durable clinical response. High T cell titers persisting for at least six months were induced by the heterologous prime-boost immunotherapy approach in combination with anti-CTLA-4, as shown in Figure 13 below.

Figure 13. Gritstone's Immunotherapy Platform ChAdV + SAM + anti-CTLA-4



To compare the durability of the T cell responses induced with our heterologous prime-boost immunotherapy approach in NHPs to the persistence of T cells post adoptive T cell therapy in humans, we plotted our T cell data over time against the data described in the literature of a recently approved CD19-specific adoptive T cell therapy. The data in Figure 14 below show that T cell numbers induced in NHPs with our heterologous prime-boost immunotherapy were more durable over a period of four months than T cell numbers observed over the same period in humans who responded to adoptive T cell therapy.

Figure 14. Comparison of Duration of T Cells Observed in NHPs with Gritstone's Immunotherapy Platform to An Approved CD19 Adoptive T Cell Therapy



*GRANITE-001 + anti-CTLA-4 in non-human primates

[1]Neelapu, *NEJM* (2017)

Safety

We have performed a ten-week GLP toxicity evaluation of the ChAdV and the SAM prime-boost in NHPs to assess safety. The heterologous prime-boost immunotherapy, when administered intramuscularly, was well tolerated at the clinical maximal dose of each therapy.

Our Clinical Development Strategy

We are employing an innovative and flexible clinical study design in an effort to execute a potentially faster-to-market strategy in a rapidly evolving and competitive treatment landscape. In order to accelerate the execution of our Phase 1 and Phase 2 program, we intend to use a seamless Phase 1/2 trial design. A seamless design refers to an integrated Phase 1 and Phase 2 trial protocol that allows rapid transition following dosing and tolerability confirmation during the Phase 1 portion to establishing proof-of-concept in the Phase 2 cohort expansion portion without compromising patients' safety or incurring delay for analysis or approval. Data obtained from this Phase 1/2 trial will inform the design and initiation of Phase 2/3 studies with registrational intent in the metastatic and adjuvant settings in specific tumor types, for both GRANITE-001, our personalized tumor-specific immunotherapy product candidate, and SLATE-001, our shared tumor-specific immunotherapy product candidate. Advanced NSCLC and gastroesophageal, bladder and MSS colorectal cancers are the initial indications for the Phase 1 portion of our GRANITE-001 initial trial. These indications have been selected for several reasons, including high mutational load, response to checkpoint inhibitors, large patient populations, manufacturing time, emerging treatment landscape, regulatory pathway, the ability to combine personalized immunotherapies with immune checkpoint inhibitors and the opportunity to generate *de novo* immune responses and/or amplify existing anti-tumor T cell responses in order to improve the depth and durability of clinical responses.

Our Planned Phase 1/2 Trial (GO-004)

In September 2018, our IND for our lead product candidate, GRANITE-001, was cleared by the FDA. In the second half of 2018, we intend to initiate our first-in-human, Phase 1/2 trial, which we refer to as GO-004, with investigation of intramuscular heterologous prime-boost immunization with ChAdV and SAM in combination with mAb to PD-1 and CTLA-4. Our Phase 1/2 trial will enroll newly diagnosed, advanced lung, gastric and bladder cancer patients who are receiving first-line chemotherapy treatment. Production of the immunotherapy will take place while patients are receiving their initial chemotherapy, and we will administer our experimental, personalized immunotherapy candidate in combination with checkpoint inhibitors as either maintenance therapy or second-line therapy. We will also include relapsed colorectal cancer patients with MSS tumors whose responses to current immunotherapies are trivial (Le at al., *NEJM* (2015)) and who have been predicted to have adequate TSNA to merit inclusion in our program. We will exclude patients who have large neoantigen loads and are well served by currently approved immunotherapy, such as melanoma patients and those with colorectal cancer and microsatellite instability. The Phase 1 portion of our seamless Phase 1/2 trial will seek to establish a dose for further investigation in Phase 2 and to evaluate safety, tolerability and, importantly, immunogenicity of our lead product candidate. Efficacy signals may not be observed nor be interpretable during the Phase 1 portion. Thus, we will seek to further evaluate efficacy and safety in the Phase 2 cohort expansion portion in several common solid tumor types.

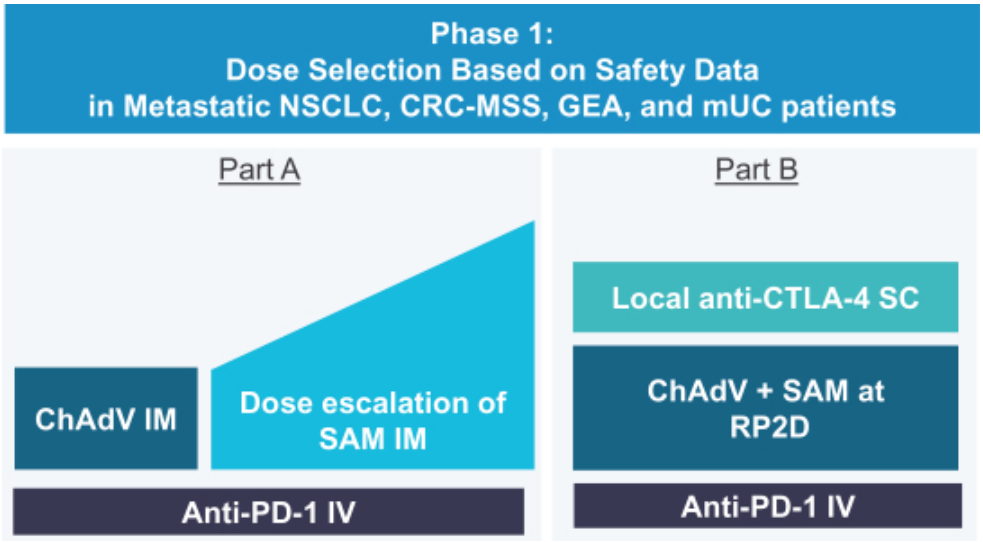
We believe co-administration of checkpoint inhibitors with personalized immunotherapy is a rational way to augment the T cell response and potential efficacy of the therapeutic regimen. Use of mAb to PD-1 is believed to unleash T cells which have been functionally silenced in tumor tissue by local PD-1 expression. Administration of antagonistic mAb to CTLA-4, an early inhibitory marker of T cell activation, has been shown to broaden the T cell response. Local subcutaneous administration of anti-CTLA-4 provides high drug concentration in the vaccination site-draining lymph node while

minimizing systemic exposure, which we believe will optimize the benefit-risk ratio of our experimental regimen. We will be provided with checkpoint inhibitors by our collaborator, BMS.

The Phase 1 portion of GO-004 will consist of two parts. All patients will receive anti-PD-1 intravenously. Part A of the Phase 1 portion of GO-004 will first examine the safety, tolerability, dose, immunogenicity and early efficacy of the initial administration of ChAdV as a prime succeeded by multiple dose levels of SAM boosts (heterologous prime-boost); Part B will consist of the co-administration of subcutaneous anti-CTLA-4 with ChAdV prime and SAM boosts at the dose established at the end of Part A. Depending upon accrual rate and safety signals, we expect to receive preliminary efficacy data by the end of 2019.

Figure 15 below illustrates the Phase 1 portion of our Phase 1/2 trial design (GO-004).

Figure 15. Phase 1 Portion of Phase 1/2 Design (GO-004)



CRC-MSS, microsatellite stable colorectal cancer; NSCLC, non-small cell lung cancer; mUC, metastatic urothelial cancer; GEA, gastroesophageal adenocarcinoma; ChAdV, Chimpanzee Adenovirus; SAM, self-amplifying mRNA; IM, intramuscular; IV, intravenous; SC, subcutaneous; RP2D, recommended phase 2 dose

Upon completion of the Phase 1 portion of GO-004, we will aim to demonstrate proof-of-concept in the Phase 2 portion where we will administer the heterologous prime-boost regimen in combination with intravenous anti-PD-1 mAb and subcutaneous anti-CTLA-4 at the recommended Phase 2 dose established during Phase 1. The Phase 2 portion of GO-004 will consist of single-arm expansion cohorts in “cold” tumors where checkpoint inhibitors alone have very low efficacy (such as MSS colorectal cancer), and potentially randomized cohorts in typically more inflamed tumors (such as lung, gastric or bladder cancer), where checkpoint inhibitors are known to have some activity. We will also assess the efficacy of a SAM homologous prime-boost immunotherapy regimen in different tumor types.

We hypothesize that personalized immunotherapy should ideally be administered in earlier lines of treatment, in the context of minimal residual disease and an optimal immune system. Depending on the safety profile observed during the Phase 1 portion of GO-004 and in parallel to single-arm cohort

expansions in the Phase 2 portion of GO-004, we are considering options to conduct randomized Phase 2 trials in stage III unresectable tumors, such as lung cancer, where our personalized immunotherapy would be used as consolidation following first-line chemo-radiotherapy. Likewise, in patients with tumors at very high risk of relapse following complete surgical resection, such as patients with triple-negative breast cancer, colorectal cancer, squamous cell carcinoma of the head and neck, or ovarian cancer, we may use our personalized immunotherapy candidate in the adjuvant setting to prevent recurrence of their disease. In this particularly challenging setting, we plan to use cell-free (circulating) DNA, or cfDNA, to detect the presence of remaining tumor cells following surgery and during adjuvant immunotherapy. We believe cfDNA technology will soon be accepted by investigators and health authorities as a validated surrogate endpoint of efficacy alongside well-established clinical endpoints, such as metastasis-free survival, progression-free survival and overall survival.

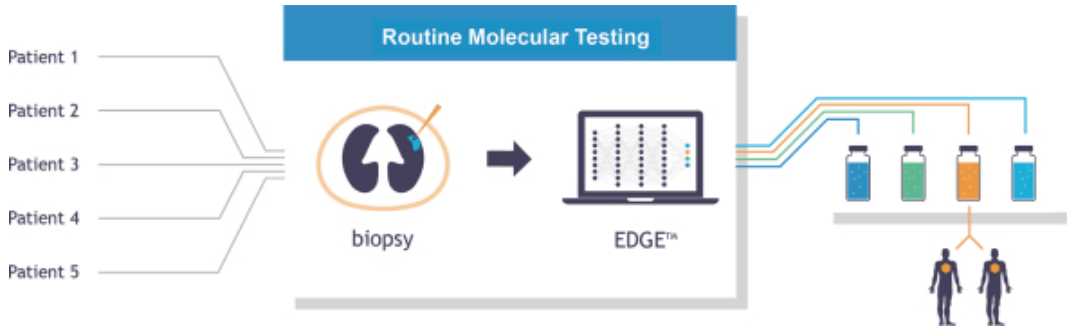
Throughout our clinical development, we will closely monitor the generation of T cells both in the blood and infiltrating the tumor microenvironment, and determine differences in the mutational and neoantigen profile of cfDNA from a patient at multiple time points during chemotherapy and immunotherapy along with additional blood- and tumor-based biomarkers including, but not limited to, serum cytokines and circulating immune cells, gene expression profiling for immune-related and tumor-related proteins, immune cell infiltration and composition and sequencing of the TCR on TILs.

Off-The-Shelf Neoantigen-Directed Immunotherapy Product (SLATE)

Our personalized immunotherapy product, GRANITE-001, is an attractive approach to neoantigen-directed immunotherapy for the largest possible number of cancer patients. A key question in the field is whether there are neoantigens which are shared by multiple patients and may thus be used to design an off-the-shelf neoantigen-directed product for a particular subset of patients with these shared neoantigens. Using our EDGE platform, we are identifying certain neoantigens arising from genes which are recurrently mutated in cancer because their function can be altered in a cancer-promoting manner. Such mutations are termed driver mutations, and they are well characterized given their importance as functional drug targets. Examples include activating mutations in KRAS or EGFR genes which drive cell proliferation and/or growth, and inactivating mutations in genes such as TP53 and APC which normally limit DNA damage or cell proliferation, respectively. As noted above, the existence of a neoantigen is determined by the combination of a mutated peptide and the presenting HLA molecule. It has been demonstrated that a common KRAS mutation (G12D), often found in colorectal cancer, could be processed by tumor cells and presented as a functional neoantigen by tumor cells carrying the HLA-C*08:02 protein. This combination of KRAS mutation and HLA is estimated to be found in 1-2% of colorectal cancer patients. KRAS mutations are also common in lung and pancreatic cancers.

Building on this observation, we have applied our EDGE antigen prediction model to common tumor driver mutations and predicted a large set of candidate shared neoantigens. Early analyses suggest that while each such shared neoantigen may only be found in less than 2% of patients with a particular tumor type, our heterologous prime-boost can deliver at least 20 of these TSNA, which we believe will result in the off-the-shelf product having an addressable population of approximately 10-15% of patients within common solid tumor types such as colorectal cancer and lung cancer. Our off-the-shelf product candidates, the first of which in development is SLATE-001, are expected to be specific to a particular tumor type, and the TSNA cassette is fixed for each product. The process for determining which patients are eligible for SLATE therapy is illustrated below in Figure 16.

Figure 16. Gritstone's Off-The-Shelf Immunotherapy Platform, SLATE-001



While our off-the-shelf SLATE product candidate series utilizes the same heterologous prime-boost system as GRANITE-001, the viral prime and RNA boost contains a fixed TSNA cassette that is designed for the subset of patients who carry the relevant antigens and HLA types. Given the commonality between GRANITE-001 and our SLATE product candidate series, we expect that there will be no additional pre-clinical work required for a particular SLATE product candidate to enter clinical testing following the Phase 1 portion of GRANITE-001's Phase 1/2 clinical trial. We also expect to investigate clinical combinations of SLATE product candidates with immune checkpoint inhibitors and are expecting to file an IND in mid-2019 and, if accepted, to enter human clinical trials for SLATE-001 in the second half of 2019. Depending upon accrual rate and safety signals, we expect to receive preliminary efficacy data by the end of 2020. Based on the importance of KRAS as a shared neoantigen, we are currently evaluating the potential utility of SLATE-001 in patients with advanced colorectal (microsatellite stable) cancer, lung adenocarcinoma and pancreatic ductal adenocarcinoma. Our preliminary estimates of the addressable patient population in these diseases range from 10 to 15%.

The driver of appropriate utilization of the off-shelf-product candidate is the ability to accurately identify patients whose tumors contain one of the TSNA represented within the off-the-shelf product. The widespread use of tumor mutation panel sequencing in advanced cancer has enabled the identification of such patients, and complementary assessment of a patient's HLA type is a standard clinical test, performed off a routine blood draw, and completed within 7-10 days by a clinical immunology laboratory.

We expect that the manufacturing of the SLATE product candidate series will be carried out using our current supply chain. The off-the-shelf nature of the product candidates allows us to leverage our processes developed for personalized products.

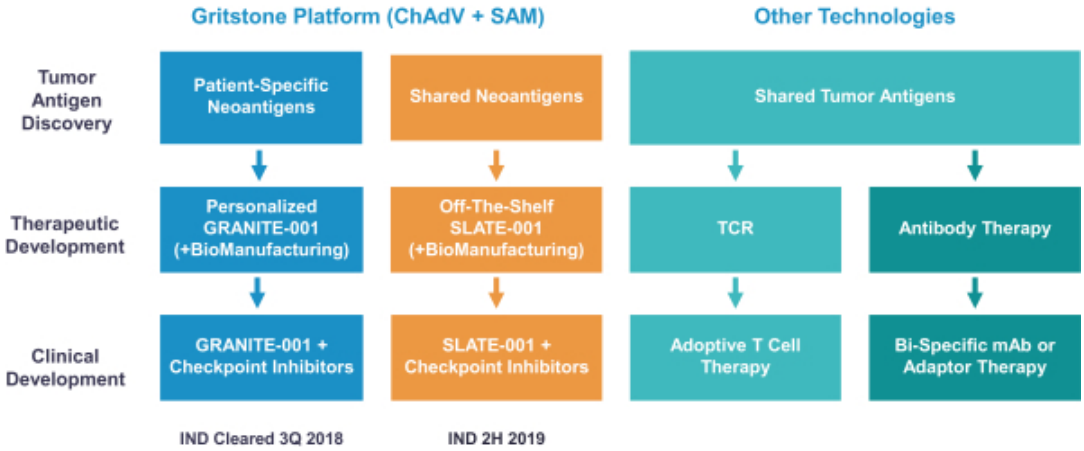
Our EDGE Antigen Identification Engine—Beyond Tumor-Specific Neoantigens

Our EDGE antigen discovery platform has also identified novel, functionally tumor-specific antigens which, as opposed to most TSNA, are commonly shared between patients. A leading set of shared tumor antigens derives from cancer testis antigens, or CTA, genes that are non-mutated and normally only expressed in the testis, but which can also be expressed by some tumor tissue. The testis is an immune privileged site such that it is able to express antigens without eliciting an immune response. CTA are well established in the literature and our approach has identified many genes, and antigens from within those genes, that may represent novel shared-tumor antigens. Currently, tumor-specific CTA targets are limited; known HLA/peptide CTA are present in only a fraction of patients within any given tumor type, with some tumor types exhibiting essentially no HLA/peptide targets available in the public domain. We believe our EDGE platform has the potential to unlock these tumor

types for therapeutic development by providing novel cancer immunotherapy targets that may be exploited via several therapeutic modalities.

We are developing TCRs and antibodies that specifically recognize these novel shared tumor-specific antigens and their corresponding HLA surface proteins. These targets can be addressed therapeutically using several different formats, such as adoptive T cell therapy, bispecific antibody approaches and vaccination. These programs are in early development. Our TSNA and shared tumor antigen discovery programs are shown in Figure 17 below.

Figure 17. Our TSNA and Shared Tumor Antigen Discovery Programs



TCR-Mimetic Antibodies

While TCRs are the natural biological recognition elements on T cells for a particular HLA/peptide complex, it is possible to identify antibodies that bind with high affinity and high selectivity to a particular HLA/peptide complex. These have been termed TCR-mimetic antibodies. We have commenced working with a third-party contract research organization, or CRO, to identify TCR-mimetic antibodies against several of our novel CTA HLA/peptide complexes. These antibodies have two potential applications:

- *Bispecific T cell engaging antibodies.* A class of antibody therapeutics has been developed which modifies the typical two-armed antibody structure wherein both arms recognize the same target antigen. The modification employs different antigen specificities within the two arms—one arm recognizes a tumor antigen and the other recognizes and activates immune-effector cells such as T cells. The product concept we are developing is to use an anti-CTA TCR-mimetic single chain antibody fragment, or scFv, as the tumor-binding domain of a bispecific T cell engaging antibody, thus generating a suite of bispecific antibodies capable of engaging novel targets. We may partner with a company that has developed a bispecific antibody framework to develop a therapeutic for clinical trial testing.
- *Surface receptors for CAR-T cells.* Chimeric antigen receptor T cells, or CAR-T cells, have demonstrated clinical benefit when targeting the highly expressed B cell surface markers such as CD19. The chimeric antigen receptor in these approaches comprises an scFv which recognizes the target antigen (such as CD19). Replacing the anti-B cell scFv with an anti-CTA TCR-mimetic scFv can, in principle, create a CAR-T cell which recognizes tumor cells expressing the relevant CTA-derived HLA/peptide complex. We currently plan to partner such products with established cell therapy companies.

T Cell Receptors

TCRs recognize HLA/peptides, and once we have identified CTA-derived peptides plus their HLA binding partner as tumor-specific antigens, we can proceed to the identification of matched TCRs. This is performed using healthy HLA-matched donors as a source of diverse T cells and screening these T cells against the target HLA/peptides. T cells that activate and expand in response to a target HLA/peptide will express relevant TCRs, and these can be characterized by isolation of the relevant T cells and sequencing of their TCR genes. These natural TCRs may offer advantages over alternative TCR identification approaches. We possess the internal expertise to identify HLA/peptide specific TCRs from HLA-matched donor blood, and we may partner those TCRs with established adoptive T cell therapy companies.

Strategic Collaboration with bluebird bio

In August 2018, we entered into a research collaboration and license agreement with bluebird bio to utilize our EDGE platform to identify and validate tumor-specific targets and provide TCRs directed to ten selected targets for use in bluebird's cell therapy platform. Under the collaboration, we received a non-refundable up-front cash payment of $20.0 million and an additional $10.0 million in equity investment in our Series C convertible preferred stock. We are also eligible to receive up to an aggregate of $1.2 billion in development, regulatory and commercial milestones associated with bluebird bio's resulting cell therapy products, as well as tiered, single-digit royalties on sales of the TCR immunotherapy products that utilize the TCRs discovered by us. The royalty term for each TCR immunotherapy product shall be determined on a product-by-product and country-by-country basis and will commence on the first commercial sale of each product in a country and end on the latest of: (i) expiration or termination of the last to expire valid claim of the last licensed patent that covers the product pursuant to the agreement; (ii) expiration of all periods of regulatory exclusivity for the product in such country (in respect of sales in that country); and (iii) ten years after the first commercial sale of such product in such country (in respect of sales in that country). bluebird will be solely responsible for all costs and expenses of its development, manufacturing, and commercial activities for resulting therapies.

The identification, validation, selection and development of the TCRs will be conducted during a five-year research term and may be extended by an additional year under certain conditions. The collaboration will be governed by a joint steering committee with representatives from us and bluebird. We and bluebird have exchanged non-exclusive licenses to carry out the research program, and, on a selected target-by-selected target basis, we have granted bluebird an exclusive worldwide license to research, develop, and commercialize resulting cell therapy products directed to such targets, including rights to utilize TCRs discovered by us. The collaboration term ends on a country-by-country and product candidate-by-product candidate basis based on completion of all payments owed to us by bluebird thereon. Either party may terminate the agreement upon written notice to the other party in the event of the other party's uncured material breach, subject to a dispute resolution process. In addition, bluebird may terminate the agreement for convenience upon prior written notice to us.

Manufacturing and Process Development

Manufacturing is a vital component of our personalized immunotherapy, and we are devoting significant resources to manufacturing and process development in order to optimize the safety and efficacy of our product candidates, as well as to reduce our per-unit manufacturing costs and time to market. The production of our personalized immunotherapy requires two distinct elements for each patient: tumor biopsy analysis to determine candidate neoantigens, followed by manufacture of vectors containing a personalized cassette encoding the selected neoantigens. The manufacture of these vectors involves complex processes, including per-patient plasmid production, mammalian cell production of virus and RNA synthesis and lipid encapsulation.

Our near-term goal is to carefully manage our fixed-cost structure, maximize optionality, and drive long-term cost of goods as low as possible. We currently use a hybrid approach to manufacturing our personalized immunotherapy whereby certain elements of our product candidates are manufactured on an out-sourced basis at CMOs, and other elements of our product candidates are manufactured internally at the 42,600 square foot manufacturing facility we established in 2017 in Pleasanton, California, all designed in compliance with cGMP. Our manufacturing strategy is designed to meet the demand needs of clinical supply and commercial launch, and we believe this hybrid approach will position us to support multi-center clinical trials and commercialization in the most time-efficient manner. In addition, the initial strategy of use of both CMOs and our own facility will provide capacity flexibility to meet potential changes in demand.

To date, we have leveraged our relationships with CMOs for preclinical studies and Phase 1/2 clinical trial supply. Doing so has significantly accelerated our ability to advance clinical trials, gain insights into the multiple manufacturing processes and establish an infrastructure for future trials. We believe our use of CMOs will also increase the speed with which capacity can be brought online, as well as enable technology transfer of processes from the CMOs into our in-house facility.

Our manufacturing process begins with receipt of a patient's routine biopsy and blood sample at our Cambridge, Massachusetts facility, where TSNA identification is performed using the EDGE platform. The TSNA sequences generated by our platform are sent electronically to a synthetic biology CMO to generate the patient-specific TSNA cassette, which is then cloned into each of the ChAdV and SAM vectors, and amplified. Following amplification, the ChAdV vector containing the cassette is sent to our Pleasanton, California facility for ChAdV manufacture and production into vials. In parallel, the SAM vector is sent to another CMO for RNA manufacture and then to a final CMO for formulation into LNP and production into vials. Currently, the entire manufacturing process, from biopsy receipt at Gritstone to the release and shipment of the personalized immunotherapy candidate to the clinical site for patient administration, takes approximately 16-20 weeks. This is consistent with the stated production and release times for other personalized immunotherapy approaches (mRNA or peptide) described in the literature. We expect this production and release timeline (and associated cost) will diminish over time due to process scaling, potential improvements in production and testing technologies and internal process expertise as well as potential reductions in regulatory testing requirements based on clinical experience.

To achieve this, our process development group is focused on several key initiatives. The first is investigating novel approaches to manufacturing our products, including process optimization and quality by design of each intermediate, drug substance and drug product. Additionally, we are systematically characterizing our manufacturing processes, including product intermediates and manufacturing unit operations. This characterization effort will allow us to implement process changes over the entire product lifecycle and to quickly react to evolving process technologies that can lead to reductions in per-unit manufacturing costs and shorter process cycle times. In addition, we plan to establish automated, closed-platform manufacturing processes. Such processes should give us the ability to conduct manufacturing in a non-classified, lower cost manufacturing environment for multiple steps of our drug product manufacturing.

Our longer-term goal is to internalize the majority of the manufacturing steps to drive down both cost and production time, as well as establish full control over intellectual property and product quality. We believe that operating our own manufacturing facility will provide us with enhanced control of material supply for both clinical trials and the commercial market, will enable the more rapid implementation of process changes, and will allow for better long-term margins. We continue efforts toward the phased integration of all manufacturing into our Pleasanton, California biomanufacturing facility. The ChAdV prime production is already fully integrated into the Pleasanton facility and we have initiated efforts toward integrating the SAM boost production in-house.

Our manufacturing strategy is currently structured to support our U.S., E.U. and Australian development plans. We believe this manufacturing strategy developed for global distribution will enable use in other geographies. Specific supply strategies for other geographies will be developed as part of our clinical and commercial plans for such other geographies.

License Agreement with Arbutus Biopharma Corporation

On October 16, 2017, we executed a license agreement with Arbutus Biopharma Corporation, or Arbutus. Arbutus is a leader in LNP technology with a broad intellectual property estate and a large library of LNPs, including multiple LNPs being used in clinical development by its partners, as well as the chemistry expertise to synthesize novel LNPs with properties optimal for SAM.

Under the agreement, Arbutus grants us a worldwide, exclusive (even as to Arbutus, subject to certain limited exceptions), sublicensable, transferable license, to research, develop, manufacture, and commercialize our novel RNA-based platform for intracellular delivery of SAM encoding TSNA in combination with one or more of Arbutus' proprietary LNPs. The licensed technology includes Arbutus' portfolio of proprietary and clinically validated LNP products and associated intellectual property, and includes technology transfer of Arbutus' manufacturing know-how.

As part of our collaboration, we have identified an LNP formulation that we believe will be optimal for use in our Phase 1/2 clinical trial of GRANITE-001. This LNP formulation is currently being used by third parties in human clinical trials in the United States. We have also initiated an effort to screen Arbutus' library of LNPs and evaluate novel LNPs to potentially identify an LNP that increases the potency of our SAM platform further. Our goal is to deliver a second generation SAM immunotherapy that has the potential to serve as a homologous prime-boost immunotherapy.

Under the license agreement, we paid Arbutus an upfront payment of $5.0 million. We have also agreed to make aggregate payments of up to $73.5 million upon the achievement of specified development milestones for up to three products, and an aggregate $50.0 million in commercial milestone payments, as well as royalty payments in the low single-digits on net sales of licensed products for a royalty term lasting until the expiration of the last patent covered under the license. The last-to-expire patent is currently scheduled to expire on November 10, 2030. Pending applications will nominally expire 20 years after the filing date of the first utility application to which they claim priority. Following acceptance of our first IND in September 2018, we made the first milestone payment of $2.5 million to Arbutus, with further milestone payments not expected to occur before 2021. In addition, we will reimburse Arbutus for conducting technology development and providing manufacturing and regulatory support for our product candidates.

The Arbutus license continues in effect until the last to expire royalty payment or early termination. The license is terminable by us for convenience with 60 days prior written notice, upon payment of a no-cause termination sum. We may also terminate in the event of material adverse safety data for a product, failure to achieve a primary or secondary efficacy endpoint, or if a regulatory authority takes action that prevents us from commercializing any product. Either party may terminate the agreement for material breach, and Arbutus may terminate the agreement for abandonment or if we challenge Arbutus patents.

Competition

The biotechnology and pharmaceutical industries put significant emphasis and resources into the development of novel and proprietary therapies for cancer treatment. We face substantial competition from many different sources, including large and specialty pharmaceutical and biotechnology

companies, academic research institutions and governmental agencies and public and private research institutions. We anticipate that we will continue to face increasing competition in the field of cancer therapy as new therapies, technologies, and data emerge from the field.

In addition to the current standard of care for patients, commercial and academic clinical trials are being pursued by a number of parties in the field of immunotherapy. Results from these trials have fueled continued interest in immunotherapy and our competitors include:

- In the neoantigen space, Agenus Inc., Neon Therapeutics Inc., or Neon, BioNTech AG in collaboration with Genentech Inc., Moderna Therapeutics, Inc. in collaboration with Merck & Co. Inc., Aduro Biotech, Inc., Advaxis Immunotherapies, Achilles Therapeutics, NousCom AG, ISA Pharmaceuticals BV, CureVac AG in collaboration with Eli Lilly and Company, Genocea Biosciences Inc., Vaccibody AS and PACT Pharma, Inc., or PACT.
- In the bispecific antibody space, Roche, MacroGenics, Inc., Xencor Inc., Adimab LLC, Zymeworks Inc., F-Star Biotechnology Ltd., Novimmune SA, Genmab A/S, Five Prime Therapeutics, Inc., Merus N.V. and Immatics Biotechnologies GmbH.
- In the engineered cell therapy and TCR space, Novartis, Juno Therapeutics (acquired by Celgene Corporation), Kite Pharma (acquired by Gilead Sciences, Inc.), bluebird bio, Inc., Medigene AG, Adaptimmune Therapeutics plc, Amgen Inc., Atara Biotherapeutics, Inc., Autolus Limited, Cellectis S.A., PACT, Neon, Mustang Bio, Inc., Iovance Biotherapeutics, Inc., TCR2 Therapeutics Inc., Editas Medicine, Inc., Unum Therapeutics Inc., Intrexon Corporation, CRISPR Therapeutics AG and Bellicum Pharmaceuticals, Inc.

Many of our competitors, either alone or with their strategic partners, have significantly greater financial resources and expertise in research and development, manufacturing, preclinical testing, conducting clinical trials, and marketing approved products than we do. Mergers and acquisitions in the pharmaceutical, biotechnology and gene therapy industries may result in even more resources being concentrated among a smaller number of our competitors. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with established companies. These competitors also compete with us in recruiting and retaining qualified scientific and management personnel and establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs.

Our commercial opportunity could be reduced or eliminated if our competitors develop and commercialize products that are safer, more effective, have fewer or less severe side effects, are more convenient or are less expensive than any products that we may develop. Our competitors also may obtain FDA or other regulatory approval for their products more rapidly than we may obtain approval for ours, which could result in our competitors establishing a strong market position before we are able to enter the market. The key competitive factors affecting the success of all of our programs are likely to be their efficacy, safety, cost and convenience.

Intellectual Property

Our commercial success depends in part on our ability to obtain and maintain proprietary protection for our products and services, to operate without infringing the proprietary rights of others, and to prevent others from infringing our proprietary rights. We rely on a combination of patents and trade secrets, as well as contractual protections, to establish and protect our intellectual property rights. We seek to protect our proprietary position by, among other things, filing patent applications in the United States and internationally. Our patent estate includes patent applications with claims relating to our products, methods, and manufacturing processes, and broader claims for potential future products and developments. As of August 31, 2018, our solely-owned patent portfolio includes,

on a worldwide basis, 47 pending patent applications and one issued patent relating to our products, methods, and manufacturing processes, including 19 pending patent applications in the United States, 28 pending patent applications filed internationally, and one issued U.S. patent relating to the use of a predictive model to identify neoantigens, particularly where the predictive model was trained using mass spectrometry data.

Our solely-owned patent estate includes a portfolio of pending patent applications related to our neoantigen-based platform; and a portfolio of pending patent applications related to our shared antigen-based platform. Details regarding these portfolios are provided below.

As of August 31, 2018, our solely-owned patent portfolio related to our neoantigen-based platform includes 15 pending U.S. patent applications and 27 ex-U.S. patent applications pending in countries including Australia, Brazil, Canada, China, Columbia, the European Patent Office, Indonesia, Israel, India, Japan, South Korea, Mexico, Malaysia, New Zealand, Peru, Philippines, Russia, Singapore, South Africa and Taiwan with claims related to neoantigen identification and related uses and manufacture. Any patents that may issue from these pending patent applications are expected to expire between 2036 and 2039, absent any patent term adjustments or extensions. These patent applications are all composition of matter, use, or process patent applications related to GRANITE-001.

As of August 31, 2018, our solely-owned patent portfolio related to our shared antigen-based platform includes three pending U.S. patent applications and one pending foreign patent application with claims related to shared antigens, shared antigen-binding proteins, and their related uses and manufacture. Any patents that may issue from these pending patent applications are expected to expire between 2038 and 2039, absent any patent term adjustments or extensions. In addition, in the ordinary course of our business, we also enter into agreements with other third parties for non-exclusive rights to intellectual property directed to other technologies that are ancillary to our business, including laboratory information management software and research and development tools.

In addition to patents, we have filed for trademark registration with the United States Patent and Trademark Office, or the USPTO, for “Gritstone,” “Granite”, “Slate” and our logo. Furthermore, we rely upon trade secrets, know-how and continuing technological innovation to develop and maintain our competitive position.

In some instances, we submit patent applications directly with the USPTO as provisional patent applications. Provisional applications for patents were designed to provide a lower-cost first patent filing in the United States. Corresponding non-provisional patent applications must be filed not later than 12 months after the provisional application filing date. The corresponding non-provisional application benefits in that the priority date(s) of the patent application is/are the earlier provisional application filing date(s), and the patent term of the finally issued patent is calculated from the later non-provisional application filing date. This system allows us to obtain an early priority date, add material to the patent application(s) during the priority year, obtain a later start to the patent term and to delay prosecution costs, which may be useful in the event that we decide not to pursue examination in an application. We file U.S. non-provisional applications and Patent Cooperation Treaty, or PCT, applications that claim the benefit of the priority date of earlier filed provisional applications, when applicable. The PCT system allows a single application to be filed within 12 months of the original priority date of the patent application, and to designate all of the 152 PCT member states in which national patent applications can later be pursued based on the international patent application filed under the PCT. The PCT searching authority performs a patentability search and issues a non-binding patentability opinion which can be used to evaluate the chances of success for the national applications in foreign countries prior to having to incur the filing fees. Although a PCT application does not issue as a patent, it allows the applicant to seek protection in any of the member states through national-phase applications.

At the end of the period of two and a half years from the first priority date of the patent application, separate patent applications can be pursued in any of the PCT member states either by direct national filing or, in some cases by filing through a regional patent organization, such as the European Patent Organization. The PCT system delays expenses, allows a limited evaluation of the chances of success for national/regional patent applications and enables substantial savings where applications are abandoned within the first two and a half years of filing.

For all patent applications, we determine claiming strategy on a case-by-case basis. Advice of counsel and our business model and needs are always considered. We file patents containing claims for protection of all useful applications of our proprietary technologies and any products, as well as all new applications and/or uses we discover for existing technologies and products, assuming these are strategically valuable. We continuously reassess the number and type of patent applications, as well as the pending and issued patent claims to ensure that maximum coverage and value are obtained for our processes, and compositions, given existing patent office rules and regulations. Further, claims may be modified during patent prosecution to meet our intellectual property and business needs.

We recognize that the ability to obtain patent protection and the degree of such protection depends on a number of factors, including the extent of the prior art, the novelty and non-obviousness of the invention, and the ability to satisfy the enablement requirement of the patent laws. The patent positions of biotechnology companies like ours are generally uncertain and involve complex legal, scientific and factual questions. In addition, the coverage claimed in a patent application can be significantly reduced before the patent is issued, and its scope can be reinterpreted or further altered even after patent issuance. Consequently, we may not obtain or maintain adequate patent protection for any of our product candidates or for our technology platform. We cannot predict whether the patent applications we are currently pursuing will issue as patents in any particular jurisdiction or whether the claims of any issued patents will provide sufficient proprietary protection from competitors. Any patents that we hold may be challenged, circumvented or invalidated by third parties.

Our commercial success will also depend in part on not infringing the proprietary rights of third parties. In addition, we have licensed rights under proprietary technologies of third parties to develop, manufacture and commercialize specific aspects of our products. It is uncertain whether the issuance of any third party patent would require us to alter our development or commercial strategies, alter our processes, obtain licenses or cease certain activities. The expiration of patents or patent applications licensed from third parties or our breach of any license agreements or failure to obtain a license to proprietary rights that we may require to develop or commercialize our future technology may have a material adverse impact on us. If third parties prepare and file patent applications in the United States that also claim technology to which we have rights, we may have to participate in interference proceedings in the USPTO to determine priority of invention.

We further own trade secrets relating to our technology, and we maintain the confidentiality of proprietary information to protect aspects of our business that are not amenable to, or that we do not consider appropriate for, patent protection. We seek to protect our trade secrets and know-how by entering into confidentiality agreements with third parties, consultants and employees who have access to such trade secrets and know-how. These agreements provide that all confidential information concerning our business or financial affairs developed or made known to the individual during the course of the individual's relationship with us are to be kept confidential and not disclosed to third parties except in specific circumstances. In addition, we enter into employment agreements that require employees to assign to us any inventions, trade secrets or know-how that they develop while employed by us. Although we take steps to protect our proprietary information and trade secrets, including through agreements with our employees and consultants, these agreements may be breached, or third parties may independently develop substantially equivalent proprietary information and techniques or otherwise gain access to our trade secrets or disclose our technology. Thus, we

may not be able to meaningfully protect our trade secrets. To the extent that our employees, consultants, scientific advisors or other contractors use intellectual property owned by others in their work for us, disputes may arise as to the rights in related or resulting know how and inventions.

For a more comprehensive discussion of the risks related to our intellectual property, please see "Risk Factors—Risks Related to Intellectual Property."

Government Regulation

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

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

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

Preclinical and Clinical Development

Prior to beginning the first clinical trial with a product candidate, we must submit an IND to the FDA. An IND is a request for authorization from the FDA to administer an investigational new drug product to humans. The central focus of an IND submission is on the general investigational plan and the protocol(s) for clinical 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 product. An IND must become effective before human clinical trials may begin. The IND automatically becomes effective 30 days after receipt by the FDA, unless the FDA, within the 30-day time period, raises safety concerns or questions about the proposed clinical trial. In such a case, the IND may be placed on clinical hold and the IND sponsor and the FDA must resolve any outstanding concerns or questions before the clinical trial can begin. Submission of an IND therefore may or may not result in FDA authorization to begin a clinical trial.

In addition to the IND submission process, sponsors of certain clinical studies of cells containing recombinant or synthetic nucleic acid molecules, including human gene transfer studies, must comply with the National Institutes of Health, or NIH, Guidelines for Research Involving Recombinant or Synthetic Nucleic Acid Molecules, or NIH Guidelines. Although compliance with the NIH Guidelines is mandatory for research conducted at or sponsored by institutions receiving NIH funding of recombinant or synthetic nucleic acid molecule research, many companies and other institutions not otherwise subject to the NIH Guidelines voluntarily follow them. The NIH Guidelines set forth the principles and requirements for NIH and institutional oversight of research with recombinant or synthetic nucleic acid molecules, including the standards for investigators and institutions to follow to ensure the safe handling and containment of such molecules. A subset of human gene transfer protocols are subject to review by the NIH Recombinant DNA Advisory Committee, or RAC, a federal advisory committee that provides recommendations regarding research involving recombinant or synthetic nucleic acid molecules. Specifically, RAC review of a protocol is required in exceptional cases where (1) an oversight body such as an Institutional Biosafety Committee, or IBC, which provides local review and oversight of research utilizing recombinant or synthetic nucleic acid molecules, or an IRB determines that the protocol would significantly benefit from RAC review, and (2) the protocol (a) uses a new vector, genetic material, or delivery methodology that represents a first-in-human experience and thus presents an unknown risk, and/or (b) relies on preclinical safety data that were obtained using a new preclinical model system of unknown and unconfirmed value, and/or (c) involves a proposed vector, gene construct, or method of delivery associated with possible toxicities that are not widely known and that may render it difficult for oversight bodies to evaluate the protocol rigorously. The RAC review proceedings are public, and reports are posted publicly to the website for the NIH's Office of Biotechnology Activities. Independent of RAC review, the NIH Guidelines also require all human gene transfer protocols subject to the NIH Guidelines to be registered with NIH, with limited exemptions. A study subject to the NIH Guidelines may not begin until the IBC approves the protocol, and the IBC cannot approve the protocol until confirmation from the NIH that such registration is complete. In the event that RAC review is warranted, the protocol registration process cannot be completed until RAC review has taken place.

Clinical trials involve the administration of the investigational product to human subjects under the supervision of qualified investigators in accordance with GCPs, which include the requirement that all research subjects provide their informed consent for their participation in any clinical study. Clinical trials are conducted under protocols detailing, among other things, the objectives of the study, the parameters to be used in monitoring safety and the effectiveness criteria to be evaluated. A separate submission to the existing IND must be made for each successive clinical trial conducted during product development and for any subsequent protocol amendments. Furthermore, an independent IRB for each site proposing to conduct the clinical trial must review and approve the plan for any clinical trial and its informed consent form before the clinical trial begins at that site, and must monitor the study until completed. Regulatory authorities, the IRB or the sponsor may suspend a clinical trial at any time on various grounds, including a finding that the subjects are being exposed to an unacceptable health risk or that the trial is unlikely to meet its stated objectives. Some studies also include oversight by an independent group of qualified experts organized by the clinical study sponsor, known as a data safety monitoring board, which provides authorization for whether or not a study may move forward at designated check points based on access to certain data from the study and may halt the clinical trial if it determines that there is an unacceptable safety risk for subjects or other grounds, such as no

demonstration of efficacy. There are also requirements governing the reporting of ongoing clinical studies and clinical study results to public registries.

For purposes of BLA approval, human clinical trials are typically conducted in three sequential phases that may overlap.

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

In some cases, the FDA may require, or companies may voluntarily pursue, additional clinical trials after a product is approved to gain more information about the product. These so- called Phase 4 studies may be made a condition to approval of the BLA. Concurrent with clinical trials, companies may complete additional animal studies and develop additional information about the biological characteristics of the product candidate, and must finalize a process for manufacturing the product in commercial quantities in accordance with cGMP requirements. The manufacturing process must be capable of consistently producing quality batches of the product candidate and, among other things, must develop methods for testing the identity, strength, quality and purity of the final product, or for biologics, the safety, purity and potency. Additionally, appropriate packaging must be selected and tested and stability studies must be conducted to demonstrate that the product candidate does not undergo unacceptable deterioration over its shelf life.

BLA Submission and Review

Assuming successful completion of all required testing in accordance with all applicable regulatory requirements, the results of product development, nonclinical studies and clinical trials are submitted to the FDA as part of a BLA requesting approval to market the product for one or more indications. The BLA must include all relevant data available from 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. The submission of a BLA requires payment of a substantial application user fee to FDA, unless a waiver or exemption applies.

Once a BLA has been submitted, the FDA's goal is to review standard applications within ten months after it accepts the application for filing, or, if the application qualifies for priority review, six months after the FDA accepts the application for filing. In both standard and priority reviews, the review process is often significantly extended by FDA requests for additional information or clarification. The FDA reviews a BLA to determine, among other things, whether a product is safe, pure and potent and the facility in which it is manufactured, processed, packed, or held meets standards designed to assure

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

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

If regulatory approval of a product is granted, such approval will be granted for particular indications and may entail limitations on the indicated uses for which such product may be marketed. For example, the FDA may approve the BLA with a Risk Evaluation and Mitigation Strategy, or REMS, to ensure the benefits of the product outweigh its risks. A REMS is a safety strategy to manage a known or potential serious risk associated with a product and to enable patients to have continued access to such medicines by managing their safe use, and could include medication guides, physician communication plans, or elements to assure safe use, such as restricted distribution methods, patient registries and other risk minimization tools. The FDA also may condition approval on, among other things, changes to proposed labeling or the development of adequate controls and specifications. Once approved, the FDA may withdraw the product approval if compliance with pre- and post-marketing requirements is not maintained or if problems occur after the product reaches the marketplace. The FDA may require one or more Phase 4 postmarket studies and surveillance to further assess and monitor the product's safety and effectiveness after commercialization, and may limit further marketing of the product based on the results of these post-marketing studies.

Expedited Development and Review Programs

The FDA offers a number of expedited development and review programs for qualifying product candidates. The fast track program is intended to expedite or facilitate the process for reviewing new products that meet certain criteria. Specifically, new products are eligible for fast track designation if they are intended to treat a serious or life-threatening disease or condition and demonstrate the potential to address unmet medical needs for the disease or condition. Fast track designation applies to the combination of the product and the specific indication for which it is being studied. The sponsor of a fast track product has opportunities for frequent interactions with the review team during product development and, once a BLA is submitted, the product may be eligible for priority review. A fast track product may also be eligible for rolling review, where the FDA may consider for review sections of the BLA on a rolling basis before the complete application is submitted, if the sponsor provides a schedule

for the submission of the sections of the BLA, the FDA agrees to accept sections of the BLA and determines that the schedule is acceptable, and the sponsor pays any required user fees upon submission of the first section of the BLA.

A product intended to treat a serious or life-threatening disease or condition may also be eligible for breakthrough therapy designation to expedite its development and review. A product can receive breakthrough therapy designation if 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. The designation includes all of the fast track program features, as well as more intensive FDA interaction and guidance beginning as early as Phase 1 and an organizational commitment to expedite the development and review of the product, including involvement of senior managers.

Any marketing application for a biologic submitted to the FDA for approval, including a product with a fast track designation and/or breakthrough therapy designation, may be eligible for other types of FDA programs intended to expedite the FDA review and approval process, such as priority review and accelerated approval. A product is eligible for priority review if it has the potential to provide a significant improvement in the treatment, diagnosis or prevention of a serious disease or condition compared to marketed products. For products containing new molecular entities, priority review designation means the FDA's goal is to take action on the marketing application within six months of the 60-day filing date (compared with ten months under standard review).

Additionally, products studied for their safety and effectiveness in treating serious or life-threatening diseases or conditions may receive accelerated approval upon a determination 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 accelerated approval, the FDA will generally require the sponsor to perform adequate and well-controlled post-marketing clinical studies to verify and describe the anticipated effect on irreversible morbidity or mortality or other clinical benefit. In addition, the FDA currently requires as a condition for accelerated approval pre-approval of promotional materials, which could adversely impact the timing of the commercial launch of the product.

In 2017, FDA established a new regenerative medicine advanced therapy, or RMAT, designation as part of its implementation of the 21st Century Cures Act. The RMAT designation program is intended to fulfill the 21st Century Cures Act requirement that FDA facilitate an efficient development program for, and expedite review of, any drug that meets the following criteria: (1) it qualifies as a RMAT, which is defined as a cell therapy, therapeutic tissue engineering product, human cell and tissue product, or any combination product using such therapies or products, with limited exceptions; (2) it is intended to treat, modify, reverse, or cure a serious or life-threatening disease or condition; and (3) preliminary clinical evidence indicates that the drug has the potential to address unmet medical needs for such a disease or condition. Like breakthrough therapy designation, RMAT designation provides potential benefits that include more frequent meetings with FDA to discuss the development plan for the product candidate and eligibility for rolling review and priority review. Products granted RMAT designation may also be eligible for accelerated approval on the basis of a surrogate or intermediate endpoint reasonably likely to predict long-term clinical benefit, or reliance upon data obtained from a meaningful number of sites, including through expansion to additional sites. Once approved, when appropriate, the FDA can permit fulfillment of post-approval requirements under accelerated approval through the submission of clinical evidence, clinical studies, patient registries, or other sources of real world evidence such as electronic health records; through the collection of larger confirmatory datasets; or through post-approval monitoring of all patients treated with the therapy prior to approval.

Fast track designation, breakthrough therapy designation, priority review, accelerated approval, and RMAT designation do not change the standards for approval but may expedite the development or approval process.

Orphan Drug Designation

Under the Orphan Drug Act, the FDA may grant orphan designation to a drug or biologic intended to treat a rare disease or condition, which is a disease or condition that affects fewer than 200,000 individuals in the United States, or more than 200,000 individuals in the United States for which there is no reasonable expectation that the cost of developing and making available in the United States a drug or biologic for this type of disease or condition will be recovered from sales in the United States for that drug or biologic. Orphan drug designation must be requested before submitting a BLA. After the FDA grants orphan drug designation, the generic identity of the therapeutic agent and its potential orphan use are disclosed publicly by the FDA. The orphan drug designation does not convey any advantage in, or shorten the duration of, the regulatory review or approval process.

If a product that has orphan drug designation subsequently receives the first FDA approval for the disease for which it has such designation, the product is entitled to orphan drug exclusive approval (or 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. Orphan drug exclusivity does not prevent FDA from approving a different drug or biologic for the same disease or condition, or the same drug or biologic for a different disease or condition. Among the other benefits of orphan drug designation are tax credits for certain research and a waiver of the BLA application 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, exclusive marketing rights in the United States may be lost if the FDA later determines that the request for designation was materially defective or if the manufacturer is unable to assure sufficient quantities of the product to meet the needs of patients with the rare disease or condition.

Post-Approval Requirements

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

The FDA may withdraw approval if compliance with regulatory requirements and standards is not maintained or if problems occur after the product reaches the market. Later discovery of previously

unknown problems with a product, including adverse events of unanticipated severity or frequency, or with manufacturing processes, or failure to comply with regulatory requirements, may result in revisions to the approved labeling to add new safety information; imposition of post-market studies or clinical studies to assess new safety risks; or imposition of distribution restrictions or other restrictions under a REMS program. Other potential consequences include, among other things:

- restrictions on the marketing or manufacturing of a 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 applications or supplements to approved applications, or suspension or revocation of existing product approvals;
- product seizure or detention, or refusal of the FDA to permit the import or export of products; or
- injunctions or the imposition of civil or criminal penalties.

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

Biosimilars and Reference Product Exclusivity

The Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, or collectively, the ACA, 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-approved reference biological product. To date, a number of biosimilars have been licensed under the BPCIA, and 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. 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 trials to demonstrate the safety, purity and potency of its product. The BPCIA also created certain exclusivity periods for biosimilars approved as interchangeable products. At this juncture, it is unclear whether products deemed "interchangeable" by the FDA will, in fact, be readily substituted by pharmacies, which are governed by state pharmacy law.

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.

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: the U.S. federal Anti-Kickback Statute, which prohibits, among other things, persons and entities from knowingly and willfully soliciting, receiving, offering or paying remuneration, to induce, or in return for, either the referral of an individual, or the purchase or recommendation of an item or service for which payment may be made under any federal healthcare program; federal civil and criminal false claims laws and civil monetary penalty laws, which prohibit, among other things, individuals or entities from knowingly presenting, or causing to be presented, claims for payment to the federal government, including federal healthcare programs, that are false or fraudulent; HIPAA, which created additional federal criminal statutes which prohibit, among other things, executing a scheme to defraud any healthcare benefit program and making false statements relating to healthcare matters, and which, as amended by HITECH, also imposes certain requirements on HIPAA covered entities and their business associates relating to the privacy, security and transmission of individually identifiable health information; the U.S. federal Physician Payments Sunshine Act, which requires certain manufacturers of drugs, devices, biologics and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program, with specific exceptions, to annually report to the federal government, information related to payments or other transfers of value made to physicians and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members; and U.S. state and foreign law equivalents of each of the above federal laws, which, in some cases, differ from each other in significant ways, and may not have the same effect, thus complicating compliance efforts. 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, 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, integrity oversight and reporting obligations to resolve allegations of non-compliance, disgorgement, individual imprisonment, contractual damages, reputational harm, diminished profits and the curtailment or restructuring of our operations.

Coverage and Reimbursement

Significant uncertainty exists as to the coverage and reimbursement status of any pharmaceutical or biological product for which we obtain regulatory approval. 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. For products administered under the supervision of a physician, obtaining coverage and adequate reimbursement may be particularly difficult because of the higher prices often associated with such drugs. Additionally, separate reimbursement for the product itself or the treatment or procedure in which the product is used may not be available, which may impact physician utilization.

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. Third-party payors are increasingly challenging the prices charged for medical products and services, examining the medical necessity and reviewing the cost effectiveness of pharmaceutical or biological products, medical devices and medical services, in addition to questioning safety and efficacy. 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. No regulatory authority has granted approval for a personalized cancer immunotherapy based on a vaccine approach, and there is no model for reimbursement of this type of product.

Healthcare Reform

The United States and some foreign jurisdictions are considering or have enacted a number of reform proposals to change the healthcare system. There is significant interest in promoting changes in healthcare systems with the stated goals of containing healthcare costs, improving quality or expanding access. In the United States, the pharmaceutical industry has been a particular focus of these efforts and has been significantly affected by federal and state legislative initiatives, including those designed to limit the pricing, coverage, and reimbursement of pharmaceutical and biopharmaceutical products, especially under government-funded health care programs, and increased governmental control of drug pricing.

In March 2010, the ACA was signed into law, which substantially changed the way healthcare is financed by both governmental and private insurers in the United States, and significantly affected the pharmaceutical industry. The ACA contains a number of provisions of particular import to the pharmaceutical and biotechnology industries, including, but not limited to, those governing enrollment in federal healthcare programs, 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, and annual fees based on pharmaceutical companies' share of sales to federal health care programs. Since its enactment, there have been judicial and Congressional challenges to certain aspects of the ACA, and we expect there will be additional challenges and amendments to the ACA in the future. For example, the Tax Cuts and Jobs Act was enacted, which, among other things, removes penalties for not complying with ACA's individual mandate to carry health insurance. Since the enactment of the Tax Cuts and Jobs Act of 2017, there have been additional amendments to certain provisions of the ACA, and the current Trump administration and Congress may continue to seek to modify, repeal, or otherwise invalidate all, or certain provisions of, the ACA. It is still uncertain whether any changes will take time to unfold, and their potential impact on coverage and reimbursement for healthcare items and services, among other things.

Other legislative changes have been proposed and adopted since the ACA was enacted, including aggregate reductions of Medicare payments to providers of 2% per fiscal year and reduced payments to several types of Medicare providers. Moreover, there has recently been heightened governmental scrutiny over the manner in which manufacturers set prices for their marketed products,

which has resulted in several Congressional inquiries and proposed and enacted federal and state legislation 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. At the federal level, the Trump administration's budget proposal for fiscal year 2019 contains further drug price control measures that could be enacted during the 2019 budget process or in other future legislation, including, for example, measures to permit Medicare Part D plans to negotiate the price of certain drugs under Medicare Part B, to allow some states to negotiate drug prices under Medicaid, and to eliminate cost sharing for generic drugs for low-income patients. Further, the Trump administration released a "Blueprint", or plan, to lower drug prices and reduce out of pocket costs of drugs that contains additional proposals to increase drug manufacturer competition, increase the negotiating power of certain federal healthcare programs, incentivize manufacturers to lower the list price of their products, and reduce the out of pocket costs of drug products paid by consumers. The Department of Health and Human Services, or HHS, has already started the process of soliciting feedback on some of these measures and, at the same time, is immediately implementing others under its existing authority. While some proposed measures will require authorization through additional legislation to become effective, Congress and the Trump administration have each indicated that it will continue to seek new legislative and/or administrative measures to control drug costs At the state level, legislatures have increasingly passed legislation and implemented 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.

Our Interactions with the FDA

Medical Device

In two separate FDA interactions, the FDA advised us that our machine learning software will not be developed under medical device diagnostic regulations. In August 2016, the FDA's Center for Devices and Radiological Health, or CDRH, determined that the TSNA prediction software is a Non-Significant Risk, or NSR, device, and an investigational device exemption, or IDE, submission is not required to conduct clinical studies with our product candidate. In April 2017, the FDA's Center for Biologics Evaluation and Research, or CBER, confirmed that medical device diagnostic regulations do not apply to our testing and processing of the patient-specific TSNA, and that quality requirements could be met through compliance with biologic cGMPs. Based on these interactions, we believe no additional device-related regulatory submissions (such as an IDE or pre-market approval application (PMA)) or device development activities are required and our TSNA prediction software procedure will be regulated as part of our cGMP manufacturing process.

Preclinical Safety

To address the personalized nature of our therapy in a Pre-Pre-IND interaction with the FDA's CBER Office of Tissues and Advanced Therapies, or OTAT, the FDA advised us that a single toxicological animal study with a representative vector could be able to support preclinical safety for purposes of IND submission. Subsequent to this discussion, we submitted proposed protocols for GLP toxicology and biodistribution studies for OTAT's review in connection with a Pre-IND meeting, and OTAT agreed that a single GLP toxicology study could support IND submission. In this GLP toxicology study, we administered our ChAdV and the SAM vectors to Indian Rhesus macaques. The heterologous prime-boost immunotherapy approach when administered intramuscularly was well tolerated at the clinical maximal dose of each platform, with some animals presenting flu-like symptoms. Preclinical chemistry findings include a transient increase in select cytokines, which resolved rapidly. The FDA cleared our IND for GRANITE-001 in September 2018.

Clinical Regulatory

In our Pre-IND meeting with OTAT, the FDA previewed Clinical Protocol GO-004 and confirmed that the overall design appeared reasonable, while providing comments on the study populations and dose determination which we have incorporated into the protocol. OTAT also agreed with our dose limiting toxicity assessment criteria, while reserving comment on the starting dose and dose escalation pending the completion of planned preclinical studies. We intend to include these elements in the protocol, which may permit a faster progression and fewer patients to reach the clinical protocol's combination cohort (Phase 1, Part C).

Regulatory Chemistry, Manufacturing & Controls

In a Type-C Facilities meeting with the FDA's CBER Division of Manufacturing and Product Quality, or DMPQ, we obtained FDA feedback on our proposed design for the multi-use clinical manufacturing facility in Pleasanton, California. Importantly, the FDA concurred with our plan to build a facility designed to accommodate manufacture of multiple patient-specific lots in parallel within the same manufacturing suite, which we expect will provide a substantial increase in scalability within a smaller allocation of cleanrooms. At our subsequent Pre-IND meeting with OTAT, the FDA agreed with our proposed use of select rapid release testing methods in which we proposed replacing standard cell-culture based tests with faster polymerase chain reaction methods. As agreed with the FDA, we submitted qualification of these methods in our IND submission for GRANITE-001. The FDA also agreed that our proposed stability program was generally acceptable to support the proposed Phase 1 clinical study of GRANITE-001, where only one representative patient lot per year will be placed on product stability during conduct of the clinical program.

Employees

As of August 31, 2018, we had 100 full-time employees, including a total of 33 employees with M.D. or Ph.D. degrees. Within our workforce, 84 employees are engaged in research and development and 16 are engaged in business development, finance, legal, human resources, facilities, information technology and general management and administration. None of our employees are represented by labor unions or covered by collective bargaining agreements. We consider our relationship with our employees to be good.

Facilities

Our corporate headquarters are located in Emeryville, California, where we lease and occupy approximately 13,100 square feet of office and laboratory space. The current term of our Emeryville lease expires in March 2023, with an option to extend the term through March 2026. We also lease an aggregate of 20,700 square feet of space in two Cambridge, Massachusetts facilities, including (i) the lease of approximately 13,900 square feet of office and laboratory space, the current term of which expires in April 2022, with an option to extend the term through April 2025, and (ii) the lease of approximately 6,800 square feet of office and laboratory space, the current term of which expires in September 2020.

We lease a manufacturing facility in Pleasanton, California, where we occupy approximately 42,600 square feet of space. The current term of our lease expires in November 2024, with an option to extend the term through November 2029.

We believe our existing facilities are sufficient for our needs for the foreseeable future. To meet the future needs of our business, we may lease additional or alternate space, and we believe suitable additional or alternative space will be available in the future on commercially reasonable terms.

Legal Proceedings

From time to time, we may become involved in litigation or other legal proceedings. We are not currently a party to any litigation or legal proceedings that, in the opinion of our management, are likely to have a material adverse effect on our business. Regardless of outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources and other factors.

MANAGEMENT

Executive Officers and Directors

The following table sets forth information regarding our executive officers and directors as of August 31, 2018:

Name	Age	Position(s)
Executive Officers and Employee Director		
Andrew Allen, M.D., Ph.D.	52	President, Chief Executive Officer and Director
Jayant Aphale, Ph.D.	57	Executive Vice President, Technical Operations
Jean-Marc Bellemin	46	Executive Vice President, Chief Financial Officer
Matthew Hawryluk, Ph.D.	40	Executive Vice President, Chief Business Officer
Erin Jones	47	Senior Vice President, Global Head of Regulatory Affairs and Quality Assurance
Karin Jooss, Ph.D.	53	Executive Vice President of Research, Chief Scientific Officer
Raphaël Rousseau, M.D., Ph.D.	49	Executive Vice President, Chief Medical Officer
Roman Yelensky, Ph.D.	40	Executive Vice President, Chief Technology Officer
Non-Employee Directors		
Richard Heyman, Ph.D.	61	Director
Steve Krognes	50	Director
Judith Li	34	Director
Nicholas Simon	64	Director
Peter Svennilson	56	Director
Thomas Woiwode, Ph.D.	46	Director

Executive Officers and Employee Director

Andrew Allen, M.D., Ph.D. co-founded Gritstone Oncology, Inc. and has served as our President and Chief Executive Officer and a member of our board of directors since August 2015. Prior to Gritstone, in April 2009, Dr. Allen co-founded Clovis Oncology, Inc., or Clovis, a public pharmaceutical development company, and served as its executive vice president of clinical and preclinical development and chief medical officer from April 2009 to July 2015. Prior to that, he was chief medical officer at Pharmion Corporation from 2006 to 2008. Previously, Dr. Allen served in clinical development leadership roles at Chiron Corporation and Abbott Laboratories, and worked at McKinsey & Company, where he advised life science companies on strategic issues. He currently serves on the board of directors of Epizyme, Inc., a publicly traded biopharmaceutical company, Sierra Oncology, Inc., a public biopharmaceutical company, and Revitope Inc., a privately-held biotechnology company. Dr. Allen previously served on the board of directors of Cell Design Labs, a private biotechnology company, from November 2015 until its acquisition by Gilead Sciences, Inc. in December 2017. Dr. Allen qualified in medicine at Oxford University and received a Ph.D. in immunology from Imperial College of Science, Technology and Medicine in London. We believe Dr. Allen is qualified to serve on our board of directors due to his educational experience and his experience as a senior executive of biotechnology and pharmaceutical companies, including his service as our chief executive officer.

Jayant Aphale, Ph.D. has served as our Executive Vice President, Technical Operations since March 2018. Prior to Gritstone, from December 2011 to March 2018, Dr. Aphale served as vice president, technical operations for Sarepta Therapeutics, Inc., a public biopharmaceutical company.

Previously, he held senior manufacturing and technical operations roles at GlaxoSmithKline plc, Enobia Pharma Corp., Acambis Inc., Wyeth Pharmaceuticals, Inc., FUJIFILM Diosynth Biotechnologies USA, Inc. and F. Hoffmann-La Roche AG, or Roche. Dr. Aphale received his B.S. in microbiology from the University of Pune in India, his Ph.D. in microbiology from Ohio State University and an M.B.A. in finance and strategy from the University of North Carolina.

Jean-Marc Bellemin has served as our Executive Vice President of Finance and Chief Financial Officer since January 2018. Prior to Gritstone, from January 2008 to December 2017, Mr. Bellemin served as senior vice president, market access, business solutions and services of Actelion Pharmaceuticals US Inc., or Actelion, a biotechnology company, until Actelion was acquired by Johnson & Johnson in 2017. Prior to Actelion, Mr. Bellemin held several financial leadership roles at Guerbet Group. Mr. Bellemin received a university degree in economics, a master's degree in finance from Université Paris Dauphine, a postgraduate degree in finance and accounting from Université Paris II Panthéon-Assas and an M.B.A. from the ESSEC Business School in Paris, France.

Matthew Hawryluk, Ph.D. has served as our Executive Vice President and Chief Business Officer since October 2015. Prior to Gritstone, from April 2011 to October 2015, Dr. Hawryluk held positions of increasing responsibility at Foundation Medicine, Inc., or Foundation Medicine, a public molecular diagnostics company, most recently serving as vice president, corporate and business development. Previously, he held roles in business development, marketing and product management across multiple divisions of Thermo Fisher Scientific, Inc. Dr. Hawryluk received a B.S. from the University of Notre Dame, a Ph.D. in cell biology and protein biochemistry from the University of Pittsburgh School of Medicine and an M.B.A. at Carnegie Mellon University's Tepper School of Business as a Swartz Entrepreneurial Fellow.

Erin Jones has served as our Senior Vice President, Global Head of Regulatory Affairs and Quality Assurance since May 2016. Prior to Gritstone, from July 2014 to April 2016, Mr. Jones served as vice president, global head of regulatory affairs, medical writing, pharmacology and toxicology at Puma Biotechnology, Inc., or Puma, a public biopharmaceutical company. Prior to Puma, Mr. Jones served as director, regulatory affairs at BioMarin Pharmaceutical Inc. from July 2012 to July 2014. Earlier in his career, Mr. Jones held various positions at Genentech, Inc., or Genentech, a biotechnology corporation and subsidiary of Roche, including head of regulatory intelligence and leader of the HER Franchise Regulatory Group. Mr. Jones received a B.S. in microbiology and chemistry from the University of Pittsburgh and an M.S. in computer systems from Pennsylvania State University.

Karin Jooss, Ph.D. has served as our Executive Vice President of Research and Chief Scientific Officer since April 2016. Prior to Gritstone, from May 2009 to April 2016, Dr. Jooss served as head of cancer immuno-therapeutics in the vaccine immuno-therapeutics department at Pfizer, Inc., or Pfizer, a public pharmaceutical company, where she was also a member of the vaccine immuno-therapeutics leadership team and served as head of the immuno-pharmacology team. Prior to joining Pfizer, Dr. Jooss served as vice president of research at Cell Genesys, Inc., or Cell Genesys, from June 2005 to April 2009, and as senior director of research at Cell Genesys from July 2001 to June 2005. She is on the editorial board of Molecular Therapy and the Journal of Gene Medicine and is a member of the Immunology and Educational Committee of the American Society of Gene & Cell Therapy and the Industry Task Force of the Society for Immunotherapy of Cancer. Dr. Jooss received her diploma in theoretical medicine from the University of Marburg in Germany, a Ph.D. in molecular biology and immunology from the University of Marburg in Germany and performed postgraduate work in gene therapy and immunology at the University of Pennsylvania.

Raphaël Rousseau, M.D., Ph.D. has served as our Executive Vice President, Chief Medical Officer since April 2017. Prior to Gritstone, from July 2012 to March 2017, Dr. Rousseau served as senior group medical director and global franchise head, pediatrics of Genentech. Before Genentech,

Dr. Rousseau was senior medical director and lead of the pediatric global development team at Roche from October 2010 to June 2012, and international medical leader, hematology, at Roche from January 2009 to September 2010. Before joining Roche, Dr. Rousseau was a professor of medical and pediatric oncology at the Université Claude Bernard in Lyon, France. At the Léon Bérard Comprehensive Cancer Center in Lyon, Dr. Rousseau was head of the pediatric translational research program. Earlier in his career, he was a clinical fellow at Texas Children's Cancer Center and a research fellow at the Center for Cell and Gene Therapy at Baylor College of Medicine in Houston. He received a Ph.D. in therapeutic biotechnologies at the Université Denis Diderot and an M.D. from Université René Descartes, both in Paris. He is board certified in pediatrics and has a sub-specialty certification in pediatric hematology-oncology.

Roman Yelensky, Ph.D. has served as our Executive Vice President, Chief Technology Officer since October 2015. He joined Gritstone at its inception in October 2015 as executive vice president of sequencing and bioinformatics. Prior to Gritstone, from July 2010 to September 2015, Dr. Yelensky served as vice president of biomarker and companion diagnostic development at Foundation Medicine. Prior to Foundation Medicine, Dr. Yelensky was a senior scientist in biomarker development at Novartis AG from April 2009 to July 2010. He received a B.A. in computer science from Cornell University, an M.S. in computer science from Stanford University and a Ph.D. in bioinformatics and integrative genomics from the Harvard-MIT Division of Health Sciences and Technology.

Non-Employee Directors

Richard Heyman, Ph.D. has served as a member of our board of directors since November 2015. Dr. Heyman is executive chairman and co-founder of Metacrine, Inc., a biotechnology company developing new therapeutics for the treatment of diabetes and related metabolic disorders. From August 2013 to April 2015, he served as president and chief executive officer of Seragon Pharmaceuticals Inc., or Seragon, a privately-held biotechnology company, which was acquired by Genentech in 2014. Prior to Seragon, in 2009 he co-founded and served as president and chief executive officer of Aragon Pharmaceuticals, Inc., or Aragon, until it was purchased by Johnson & Johnson in 2013. Earlier in his career, Dr. Heyman co-founded and served as chief scientific officer of X-Ceptor Therapeutics, Inc. and was vice president of research at Ligand Pharmaceuticals, Inc. He is the author or inventor on more than 120 publications and patents. Dr. Heyman serves as vice chairman of the board of trustees of the Salk Institute for Biological Studies, or the Salk Institute, and is a board member of BIOCOM Life Sciences Association of California. He is also a member of the Therapeutic Advisory Board for aTyr Pharma, Inc. and serves on the Executive Committee of the University of California, San Diego Moores Cancer Center. Dr. Heyman received a B.S. in chemistry from the University of Connecticut and a Ph.D. in pharmacology from the University of Minnesota. He was an NIH post-doctoral fellow and staff scientist at the Salk Institute. We believe that Dr. Heyman is qualified to serve on our board of directors due to his educational background and his experience as a board member and senior executive of biotechnology and pharmaceutical companies.

Steve Krognes has served as a member of our board of directors since July 2018. Mr. Krognes has served as chief financial officer of Denali Therapeutics Inc., or Denali, since October 2015. Mr. Krognes joined Denali from Genentech, where he served as chief financial officer and a member of the executive committee from April 2009 to September 2015. Mr. Krognes also oversaw Genentech's site services organization between 2011 and 2015, and Genentech's information technology organization between 2009 and 2011. He chaired the Genentech Access to Care Foundation between 2009 and 2015. From January 2004 to April 2009, Mr. Krognes served as head of mergers and acquisitions and a member of the finance executive committee at Roche, a Swiss biotechnology company. From July 2002 to December 2003, Mr. Krognes served as director of mergers and acquisitions at Danske Bank based in Norway. From April 2000 to June 2002, he was a venture capitalist with Pylonia Ventures, a

Swedish venture investments company. Prior to that, Mr. Krognes worked as a consultant at McKinsey & Company and an investment banker at Goldman Sachs, based in London and Boston. Mr. Krognes currently serves as a member of the boards of directors of Corvus Pharmaceuticals, a publicly traded biopharmaceutical company, and RLS Global AB, a Swedish life sciences company. Mr. Krognes served as a board member of the California Life Sciences Association between 2010 and 2015, and the California Academy of Sciences, a private scientific and educational institution, between 2014 and 2018. He received his M.B.A. from Harvard Business School and his B.S. in economics from the Wharton School of the University of Pennsylvania. We believe Mr. Krognes is qualified to serve on our board of directors due to his experience as a board member and senior executive of biotechnology and pharmaceutical companies.

Judith Li has served as a member of our board of directors since September 2017. Ms. Li has served as a partner at Lilly Asia Ventures, or LAV, which is based in Hong Kong and Shanghai and focuses on early and growth stage investments across biopharmaceuticals, medical devices, and diagnostics both domestically and cross-border, since 2013. Judith currently holds board appointments at a variety of LAV's private portfolio companies, including Just Biotherapeutics, Inc., Veritas Genetics Inc., and Nextcure, Inc. From April 2014 to October 2017, she served on the board of Crown BioScience Inc., a biotechnology company which was publicly listed on the Taiwan Stock Exchange until it was acquired in December 2017. Previously, Ms. Li served as a senior business analyst at McKinsey & Company, worked in hospital administration at Partners Healthcare, and co-founded an interventional nephrology medical device venture. Judith holds a B.A. in biology from Harvard and an M.B.A. from Harvard Business School. We believe that Ms. Li is qualified to serve on our board of directors due to her experience as a board member of biotechnology and pharmaceutical companies, and her experience as an investor in new life sciences companies.

Nicholas Simon has served as a member of our board of directors since September 2015. Mr. Simon has been a managing director of Clarus Ventures, LLC, or Clarus, a venture capital firm focused on life sciences companies, since the firm's inception in 2005. Prior to Clarus, Mr. Simon was a general partner at MPM Capital, Inc., a healthcare venture capital firm. He has more than 20 years of operating and investment experience in the biopharmaceutical industry including serving as vice president of business and corporate development at Genentech from 1989 to 2000. In addition to Gritstone, Mr. Simon is currently a member of the board of directors Nuvelution Pharma, Inc., a private pharmaceutical company, as well as chairman of the board of Sientra, Inc., a public medical aesthetics company. He has also been a member of the board of directors of numerous private and public life sciences companies including Achillion Pharmaceuticals, Inc., Avanir Pharmaceuticals, Inc., Barrier Therapeutics, Inc., Biovitrum AB, CoTherix, Inc., InterMune, Inc., Pearl Therapeutics Inc., QuatRx Pharmaceuticals Co., Rigel Pharmaceuticals, Inc., and Sangstat Medical Corporation. Mr. Simon is also a member of the foundation board at the Gladstone Institute, a private not-for-profit research institute affiliated with the University of California, San Francisco. Mr. Simon received a B.S. in microbiology from the University of Maryland and an M.B.A. from Loyola University. We believe that Mr. Simon is qualified to serve on our board of directors due to his experience as a board member of biotechnology and pharmaceutical companies, and his experience as an investor in new life sciences companies.

Peter Svennilson has served as a member of our board of directors since September 2015. In February 2007, Mr. Svennilson founded The Column Group, LP, or The Column Group, a San Francisco-based biotechnology venture capital firm, and currently serves as its managing partner. Mr. Svennilson also currently serves as a member of the board of Immune Design Corp., a public late-stage immunotherapy company. In addition, Mr. Svennilson serves on the boards of a number of private companies, including serving as chairman of the board of ORIC Pharmaceuticals, Inc., a private biopharmaceutical company and as a member of the boards of directors of NGM Biopharmaceuticals, Inc., Constellation Pharmaceuticals, Inc. and Ribon Therapeutics, Inc. Previously, he served as

chairman of the board of Seragon from January 2008 until it was acquired by Genentech in August 2014. He was the chairman of the board of Aragon from May 2009 until it was acquired by Johnson & Johnson in August 2013. Mr. Svennilson was also a board member of PTC Therapeutics, Inc. from 2012 until 2014. Prior to founding The Column Group, he founded Three Crowns Capital, where he served as its managing partner from June 1996 to February 2007. From 1996 to 2006, Mr. Svennilson served as a board member of multiple biotechnology companies, including Rosetta Inpharmatics LLC, ChemoCentryx, Inc. and Somalogic, Inc. Prior to founding Three Crowns Capital, from 1987 to 1993 he was the associate managing director in charge of European Investment Banking Origination at Nomura Securities in London. Mr. Svennilson is currently a trustee for the Institute for Advanced Study in Princeton, New Jersey. Mr. Svennilson received an M.B.A. from the Stockholm School of Economics and Finance. We believe that Mr. Svennilson is qualified to serve on our board of directors due to his experience in the venture capital industry and in serving as a director of other public life science companies.

Thomas Woiwode, Ph.D. has served as a member of our board of directors since September 2015. Dr. Woiwode has been with Versant Venture Management, LLC, or Versant Ventures, a healthcare investment firm, since 2002 in various capacities, serving as a managing director since July 2014 and previously as a venture partner from June 2011 to July 2014. He has also served in a number of operating roles over this time, most recently as the chief operating officer of Okairos AG, or Okairos, a biopharmaceutical company developing genetic vaccines for major infectious diseases, from April 2011 until May 2013. Prior to Okairos, Dr. Woiwode co-founded EuroVentures, a wholly owned biotechnology incubator within Versant Ventures, and in this role, served as the founding chief business officer for three biotechnology companies created within Versant Ventures. Before joining Versant Ventures, Dr. Woiwode also served as a research scientist at XenoPort, Inc. Dr. Woiwode currently serves on the board of directors of CRISPR Therapeutics AG and Adverum Biotechnologies, Inc., and served on the board of directors of Audentes Therapeutics, Inc. from July 2013 to July 2017. Dr. Woiwode also serves on the board of directors of several private companies. Dr. Woiwode holds a B.A. in English and a B.S. in Chemistry from the University of California, Berkeley and a Ph.D. in Organic Chemistry as an NSF Fellow from Stanford University. We believe that Dr. Woiwode is qualified to serve on our board of directors due to his educational background, his experience as a board member and senior executive of biotechnology and pharmaceutical companies, and his experience as an investor in new life sciences companies.

Board Composition

Director Independence

Our board of directors currently consists of seven members. Our board of directors has determined that all of our directors, other than Dr. Allen, qualify as “independent” directors in accordance with the Nasdaq Global Market listing requirements. Dr. Allen is not considered independent because he is an employee of Gritstone Oncology, Inc. The Nasdaq Global 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 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 until the third annual meeting following election. Effective upon the consummation of this offering, we expect that our directors will be divided among the three classes as follows:

- the Class I directors will be Ms. Li and Dr. Allen, and their terms will expire at the annual meeting of stockholders to be held in 2019;
- the Class II directors will be Drs. Heyman and Woiwode and Mr. Simon, and their terms will expire at the annual meeting of stockholders to be held in 2020; and
- the Class III directors will be Messrs. Krognes and Svennilson, 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, 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 convertible preferred stock, voting as a separate class, have the right to elect three 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, the holders of our common 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 convertible preferred stock, 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:

- one member designated by Versant Ventures and elected by the holders of a majority of our Series A convertible preferred stock, voting as a separate class, for which Dr. Woiwode has been designated;
- one member designated by The Column Group and elected by the holders of a majority of our Series A convertible preferred stock, voting as a separate class, for which Mr. Svennilson has been designated;
- one member designated by Clarus and elected by the holders of a majority of our Series A convertible preferred stock, voting as a separate class, for which Mr. Simon has been designated;
- one member designated by LAV and elected by the holders of a majority of our Series B convertible preferred stock, voting as a separate class, for which Ms. Li has been designated;
- one member elected by the holders of a majority of the shares of our common stock, voting as a separate class, who shall be our then-serving Chief Executive Officer, for which Dr. Allen has been designated; and

- two 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 Dr. Heyman and Mr. Krognes have been designated, with one vacancy.

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 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 bylaws and corporate governance guidelines provide our board of directors with flexibility to combine or separate the positions of Chairman of the board of directors and Chief Executive Officer 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. Dr. Heyman presides over the executive sessions of the board of directors and acts 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

Audit Committee

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

- appoints our independent registered public accounting firm;
- evaluates the independent registered public accounting firm's qualifications, independence and performance;
- determines the engagement of the independent registered public accounting firm;
- reviews and approves the scope of the annual audit and the audit fee;
- 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;
- 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;
- reviews our critical accounting policies and estimates;
- reviews all related party transactions on an ongoing basis;
- establishes procedures for the receipt, retention and treatment of complaints received by us regarding accounting, internal controls or auditing matters;
- annually reviews and assesses treasury functions including cash management process;
- discusses on a periodic basis, or as appropriate, with management, our policies and procedures with respect to risk assessment; and
- investigates any matters received, and reports to the Board periodically, with respect to ethics issues, complaints and associated investigations; and
- reviews the audit committee charter and the committee's performance at least annually.

The current members of our audit committee are Messrs. Krognes, Simon and Svennilson. Mr. Krognes 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 Market. Our board of directors has determined that Mr. Krognes 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 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 the members of our audit committee are independent under the applicable rules of the SEC and the Nasdaq Global Market. The audit committee operates under a written charter that satisfies the applicable standards of the SEC and the Nasdaq Global 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 current members of our compensation committee are Drs. Woiwode and Heyman and Mr. Krognes. Dr. Woiwode 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 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 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 current members of our nominating and corporate governance committee are Drs. Heyman and Woiwode and Ms. Li. Ms. Li serves as the chairman of the committee. Each of the members of our nominating and corporate governance committee is an independent director under the applicable rules and regulations of the Nasdaq Global 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 Market.

Compensation Committee Interlocks and Insider Participation

During the year ended December 31, 2017, our compensation committee consisted of Dr. Woiwode and Patrick Mahaffy, a former member of our board of directors. 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;
- 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 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 damage.

Director Compensation

Historically, we have not had a formalized non-employee director compensation program; however, in 2017, we paid each of Richard Heyman, Ph.D. and Patrick Mahaffy, a former member of our board of directors, an annual retainer of $48,000 pursuant to offer letters entered into with them in connection with their commencement of service on our board of directors in 2015. We also granted each of Dr. Heyman and Mr. Mahaffy options to purchase our common stock in connection with their commencement of service with us. Each of our other non-employee directors is associated with one of our principal investors and is not compensated for service on our board of directors. In addition, we reimburse our non-employee directors for travel and other necessary business expenses incurred in the performance of their services for us.

2017 Director Compensation Table

Name	Fees Earned or Paid in Cash ($)	Option Awards ($)(1)	Total ($)
Richard Heyman, Ph.D.	48,000	—	48,000
Judith Li	—	—	—
Patrick Mahaffy(2)	48,000	—	48,000
Nicholas Simon	—	—	—
Peter Svennilson	—	—	—
Thomas Woiwode, Ph.D.	—	—	—

(1) As of December 31, 2017, Dr. Heyman and Mr. Mahaffy held 26,350 and 64,782 shares of our common stock, respectively, subject to repurchase at the original purchase price thereof in the event their service were to terminate with us. These shares were acquired upon exercise of stock options prior to vesting.

(2) In May 2018, Mr. Mahaffy resigned from our board of directors.

We have approved a compensation policy for our non-employee directors, or the Director Compensation Program, to be effective in connection with the consummation of this offering. 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 $35,000 per year.

- The Independent Chairperson will receive an additional annual cash retainer in the amount of $30,000 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.
- The chairperson of the compensation committee will receive additional annual cash compensation in the amount of $10,000 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 $5,000 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 will automatically be granted an option to purchase 15,942 shares of our common stock upon the director's initial appointment or election to our board of directors, referred to as the Initial Grant, and an option to purchase 7,971 shares of our common stock automatically on the date of each annual stockholder's meeting thereafter, referred to as the Annual Grant. The Initial Grant will vest in substantially equal monthly installments for three years from the date of grant, subject to continued service through each applicable vesting date. The Annual Grant will vest on the earlier of the first anniversary of the date of grant or the date of the next annual stockholder's meeting to the extent unvested as of such date, subject to continued service through each applicable vesting date.

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:

- Andrew Allen, M.D., Ph.D., President and Chief Executive Officer;
- Karin Jooss, Ph.D., Executive Vice President and Chief Scientific Officer; and
- Raphaël Rousseau, M.D., Ph.D., Executive Vice President and Chief Medical 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.

Name and Principal Position	Year	Salary ($)	Option Awards ($)(1)	Non-Equity Incentive Plan Compensation ($)(2)	All Other Compensation ($)(3)	Total ($)
Andrew Allen, M.D., Ph.D. *President and Chief Executive Officer*	2017	435,625	—	156,825	—	592,450
Karin Jooss, Ph.D. *EVP and Chief Scientific Officer*	2017	369,000	—	116,235	18,982	504,217
Raphaël Rousseau, M.D., Ph.D.(4) *EVP and Chief Medical Officer*	2017	283,334	286,137	89,250	11,896	670,617

(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 10 of the audited financial statements included in this prospectus for the assumptions used in calculating these amounts.

(2) Amounts represent the annual performance-based cash bonuses earned by our named executive officers based on the achievement of certain corporate performance objectives during 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.

(3) Amount reported for Dr. Jooss represents $12,537 of reimbursed commuting expenses and $6,445 paid to reimburse taxes incurred in connection with such reimbursement. Amount reported for Dr. Rousseau represents $7,120 of reimbursed attorney fees incurred in connection with the negotiation of his offer letter and $4,776 paid to reimburse taxes incurred in connection with such reimbursement.

(4) Dr. Rousseau commenced employment with us on April 17, 2017.

Narrative to Summary Compensation Table

2017 Salaries

Our named executive officers each receive a base salary to compensate them for services rendered to our company. The base salary payable to each named executive officer is intended to

provide a fixed component of compensation reflecting the executive's skill set, experience, role and responsibilities.

For fiscal year 2017, Dr. Allen's annual base salary was $437,750, Dr. Jooss's base salary was $370,800, and Dr. Rousseau's base salary was $400,000. The annual base salaries of Dr. Allen and Dr. Jooss were increased 3% from their respective levels in 2016, and Dr. Rousseau's base salary was determined by the Board as a result of negotiations in connection with his commencement of employment with us in April 2017. In September 2018, our named executive officers entered into new employment agreements providing for the following base salaries: for Dr. Allen, $500,000; for Dr. Jooss, $381,924; and for Dr. Rousseau, $412,000.

2017 Bonuses

We maintain an annual performance-based cash bonus program in which each of our named executive officers participated in 2017. Each named executive officer's 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 Dr. Allen, Dr. Jooss and Dr. Rousseau were targeted at 40%, 35% and 35% of their respective base salaries. Dr. Allen's and Dr. Jooss's target bonuses remained unchanged from their respective 2016 levels, and Dr. Rousseau's target bonus was determined by the Board as a result of negotiations in connection with his commencement of employment with us in April 2017. The new employment agreements we entered into with Dr. Allen, Dr. Jooss and Dr. Rousseau in September 2018 provide for annual target bonuses of 50%, 35% and 35% of their respective base salaries.

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. In early 2018, the Board reviewed and approved the achievement of our 2017 corporate goals at 90%. Based on this level of achievement, our named executive officers were paid performance bonuses at 90% of their targeted amounts.

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 "Non-Equity Incentive Plan Compensation." Dr. Rousseau's annual bonus was based on his actual base salary earnings for 2017.

Equity Compensation

In May 2017, in accordance with his offer letter with us dated November 15, 2016, the Board granted Dr. Rousseau an option to purchase 165,326 shares of our common stock pursuant to our 2015 Equity Incentive Plan. The option vests as to 25% of the shares underlying the option on the first anniversary of Dr. Rousseau's employment commencement date, and as to 1/48th of the shares underlying the option on each monthly anniversary thereafter, subject to Dr. Rousseau's continued service to the Company on each applicable vesting date. In addition, the option is subject to the accelerated vesting provision set forth in Dr. Rousseau's offer letter, as described below under "Executive Compensation Arrangements."

Drs. Allen and Jooss were not granted equity awards in 2017.

We 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. The 2018 Plan will be effective on the day prior to the first public trading date of our common stock. 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 may match (in our discretion) contributions made by participants in the 401(k) plan in the amount equal to 50% of up to 4% of the participant's eligible compensation contributed to the plan, not to exceed 2% of a participant's eligible compensation. We believe that providing a vehicle for tax-deferred retirement savings though 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

We provide limited perquisites to our named executive officers when our compensation committee determines that such perquisites are necessary or advisable to fairly compensate or incentivize our employees. In 2017, we reimbursed expenses incurred by Dr. Jooss in commuting from her home in San Diego, California to our headquarters in Emeryville, California. We also reimbursed legal expenses incurred by Dr. Rousseau in negotiating his offer letter.

Outstanding Equity Awards at Fiscal Year-End

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

		Option Awards				Stock Awards	
Name	Grant Date	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price ($)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested ($)(4)
Andrew Allen, M.D., Ph.D.	9/4/2015(1)	—	—	—	—	603,870	8,454,096
Karin Jooss, Ph.D.	4/15/2016(2)	—	—	—	—	187,766	2,628,710
Raphaël Rousseau, M.D, Ph.D.	5/18/2017(3)	—	165,326	0.76	5/17/2027	—	—

(1) Dr. Allen acquired 1,449,275 restricted shares of our common stock pursuant to a founder stock purchase agreement. The restricted shares vest and our repurchase right lapses in respect of 12.5% of the total shares on the six month anniversary of the vesting commencement date (August 1, 2015), and in respect of 1/48th of the total shares monthly thereafter, subject to Dr. Allen's continued service with us through each vesting date. The option is subject to the vesting acceleration provision set forth in Dr. Allen's employment agreement, as described below under "Executive Compensation Arrangements."

(2) Represents restricted shares acquired upon early exercise of a stock option covering 321,884 shares of our common stock. The restricted shares vest and our repurchase right lapses in respect of 25% of the total shares on the first anniversary of the vesting commencement date (April 15, 2016), and in respect of 1/48th

of the total shares monthly thereafter, subject to Dr. Jooss's continued service with us through each vesting date. The restricted shares are subject to the vesting acceleration provision set forth in Dr. Jooss's offer letter and employment agreement, as described below under "Executive Compensation Arrangements."

(3) The option vests in respect of 25% of the underlying shares on the first anniversary of the vesting commencement date (April 17, 2017), and in respect of 1/48th of the underlying shares monthly thereafter, subject to Dr. Rousseau's continued service with us through each vesting date. The option is subject to the vesting acceleration provision set forth in Dr. Rousseau's offer letter and employment agreement, as described below under "Executive Compensation Arrangements."

(4) The market value of our common stock is based upon the assumed initial public offering price of $14.00 per share, which is the midpoint of the range set forth on the cover of this prospectus.

Executive Compensation Arrangements

As of December 31, 2017, we were party to offer letters with each of our named executive officers. In September 2018, we entered into new employment agreements with each of our named executive officers, which superseded in their entirety their prior offer letters with us.

Dr. Allen. We entered into an offer letter with Dr. Allen on October 7, 2015 in connection with his appointment as our President and Chief Executive Officer, which sets forth his initial base salary and benefit plan participation.

Under Dr. Allen's new employment agreement, if he is terminated without "cause" or resigns for "good reason" (as each is defined in his employment agreement), he will be eligible to receive the following: (i) an amount equal to the sum of (A) his base salary and (B) his target annual bonus; and (ii) payment or reimbursement of up to 12 months of healthcare continuation coverage. In addition, if Dr. Allen is terminated without cause or resigns for good reason during the period commencing three months before and ending 12 months after a change in control of the Company, he will be eligible to receive the following: (i) an amount equal to the sum of (A) 150% of his base salary and (B) his target annual bonus; (ii) payment or reimbursement of up to 18 months of healthcare continuation coverage; and (iii) full vesting acceleration of all then-outstanding equity awards. The foregoing severance benefits are subject to Dr. Allen's execution and non-revocation of a general release of claims against the Company.

Dr. Jooss. We entered into an offer letter with Dr. Jooss on February 29, 2016 in connection with her appointment as Executive Vice President and Chief Scientific Officer, which sets forth her initial base salary, annual bonus opportunity, benefit plans participation, initial equity award, and a $30,000 signing bonus that was paid in April 2016. The offer letter provides for an initial stock option grant covering 321,884 shares of our common stock, which was granted in April 2016.

Under Dr. Jooss's offer letter, if she is terminated without "cause" or resigns for "good reason" (as each is defined in the offer letter), she will be eligible to receive six months of continued base salary (and up to nine months of base salary if the Company fails to give 90 days' advance written notice to Dr. Jooss prior to any such termination). In addition, if Dr. Jooss is terminated without "cause" or resigns for "good reason" within the period commencing three months prior to and ending 12 months following a change in control, then she will be entitled to receive: (i) one year of continued base salary and (ii) full vesting acceleration of all then-outstanding equity awards. The foregoing severance benefits are subject to Dr. Jooss's execution and non-revocation of a general release of claims against the Company.

Under Dr. Jooss's new employment agreement, if she is terminated without "cause" or resigns for "good reason" (as each is defined in her employment agreement), she will be eligible to receive the following: (i) an amount equal to the sum of (A) 75% of her base salary and (B) her target annual

bonus; and (ii) payment or reimbursement of up to nine months of healthcare continuation coverage. In addition, if Dr. Jooss is terminated without cause or resigns for good reason during the period commencing three months before and ending 12 months after a change in control of the Company, she will be eligible to receive the following: (i) an amount equal to the sum of (A) her base salary and (B) her target annual bonus; (ii) payment or reimbursement of up to 12 months of healthcare continuation coverage; and (iii) full vesting acceleration of all then-outstanding equity awards. The foregoing severance benefits are subject to Dr. Jooss's execution and non-revocation of a general release of claims against the Company.

Dr. Rousseau. We entered into an offer letter with Dr. Rousseau on November 15, 2016 in connection with his appointment as Executive Vice President and Chief Medical Officer, which sets forth his initial base salary, annual bonus opportunity, benefit plans participation, and initial equity awards. The offer letter provides for an initial stock option grant covering 165,326 shares of our common stock, which was granted in May 2017.

Under Dr. Rousseau's offer letter, if he is terminated without "cause," resigns for "good reason" (as each is defined in the offer letter), or his employment ends due to death or permanent disability, he will be eligible to receive: (i) 12 months of continued base salary, (ii) a pro-rated annual bonus calculated at 100% of target, and (iii) up to 12 months of continued healthcare coverage reimbursements. In addition, if Dr. Rousseau is terminated without "cause" or resigns for "good reason" within the period commencing three months prior to the Company entering into a definitive agreement for a change in control and ending 12 months following a change in control, then he will be entitled to receive (i) one year of continued base salary, (ii) a pro-rated annual bonus plus a full annual bonus, each calculated at 100% of target, (iii) up to 12 months of continued healthcare coverage, and (iv) full vesting acceleration of all then-outstanding equity awards. The foregoing severance benefits are subject to Dr. Rousseau's execution and non-revocation of a general release of claims against the Company.

Under his new employment agreement, Dr. Rousseau has the same severance and change in control benefits that Dr. Jooss has under her new employment agreement, described above.

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 2015 Equity Incentive Plan, referred to as the 2015 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

We adopted the 2018 Incentive Award Plan, or 2018 Plan, which will be effective on the day prior to the first public trading date of our common stock. 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, 2,690,000 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

2015 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 2015 Plan that are forfeited or lapse unexercised and which following the effective date are not issued under our 2015 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) 4% 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 45,000,000 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;
- to the extent that shares of our common stock are repurchased by us prior to vesting so that shares are returned to us, such shares will be available for future grants under the 2018 Plan;
- the payment of dividend equivalents in cash in conjunction with any outstanding awards will not be counted against the shares available for issuance 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. The compensation committee must consist of at least three members of our board of directors, each of whom is intended to qualify as a “non-employee director” for purposes of Rule 16b-3 under the Exchange Act and an “independent director” within the meaning of the rules of the applicable stock exchange, or other principal securities market on which shares of our common stock are traded. 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 and to take all other actions necessary or advisable for the administration of the 2018 Plan. The administrator is also authorized to adopt, amend or rescind rules relating to administration of the 2018 Plan. Our board of directors may at any time remove the compensation committee as the administrator and revest in itself the authority to administer the 2018 Plan. The full board of directors will administer the 2018 Plan with respect to awards to non-employee directors.

Eligibility. Options, SARs, restricted stock and all other stock-based and cash-based awards under the 2018 Plan may be granted to individuals who are then our officers, employees or consultants or are the officers, employees or consultants of certain of our subsidiaries. Such awards also may be granted to our directors. 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, 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.

- *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 other than stock options or SARs. Dividend equivalents are credited as of dividend payments dates during the period between a specified date and the date such award terminates or expires, as determined by the plan administrator. In addition, dividend equivalents with respect to shares covered by a performance award will only be paid to the participant at the same time or times and to the same extent that the vesting conditions, if any, are subsequently satisfied and the performance award vests with respect to such shares.

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

Change in Control. In the event of a change in control, unless the 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 may also make appropriate adjustments to awards under the 2018 Plan and is authorized to provide for the acceleration, cash-out, termination, assumption, substitution or conversion of such awards in the event of a change in control or certain other unusual or nonrecurring events or transactions.

Adjustments of Awards. In the event of any stock dividend or other distribution, stock split, reverse stock split, reorganization, combination or exchange of shares, merger, consolidation, split-up, spin-off, recapitalization, repurchase or any other corporate event affecting the number of outstanding shares of our common stock or the share price of our common stock that would require adjustments to the 2018 Plan or any awards under the 2018 Plan in order to prevent the dilution or enlargement of the potential benefits intended to be made available thereunder, the administrator will make appropriate, proportionate adjustments to: (i) the aggregate number and type of shares subject to the 2018 Plan; (ii) the number and kind of shares subject to outstanding awards and terms and conditions of outstanding awards (including, without limitation, any applicable performance targets or criteria with respect to such awards); and (iii) the grant or exercise price per share of any outstanding awards under the 2018 Plan.

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 effective date of the 2018 Plan, and no additional annual share increases to the 2018 Plan's aggregate share limit will occur from and after such anniversary. 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.

2015 Equity Incentive Plan

Our board of directors adopted, and our stockholders approved, the 2015 Plan effective as of August 28, 2015, which was subsequently amended to increase the number of shares issuable under the 2015 Plan. As of August 31, 2018, under the 2015 Plan, there were outstanding options to purchase 2,376,054 shares of our common stock at a weighted-average exercise price per share of $3.94 and 1,057,590 outstanding shares of common stock, and there were 92,815 shares of common stock reserved for issuance pursuant to future awards. Following this offering and in connection with the effectiveness of our 2018 Plan, the 2015 Plan will terminate and no further awards will be granted under the 2015 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 2015 Plan and the awards granted under it. The administrator has the authority to select the service providers to whom awards will be granted under the 2015 Plan, the number of shares to be subject to those awards under the 2015 Plan, and the terms and conditions of the awards granted. In addition, the administrator has the authority to construe and interpret the 2015 Plan and to adopt rules for the administration, interpretation and application of the 2015 Plan that are consistent with the terms of the 2015 Plan.

Awards. The 2015 Plan provides that the administrator may grant or issue options, including ISOs and NSOs, and stock purchase rights to employees, consultants and directors; provided that only employees may be granted ISOs.

- *Stock Options*. The 2015 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 Purchase Rights*. The 2015 Plan provides for the grant of stock purchase rights. Each stock purchase right that is accepted will be governed by a restricted stock purchase agreement, which will detail the restrictions on transferability, risk of forfeiture and other restrictions the administrator approves. In general, restricted stock acquired upon exercise of a stock purchase right may not be sold, transferred, pledged, hypothecated, margined or otherwise encumbered until restrictions are removed or expire. Holders of restricted stock, unlike recipients of stock options, will have voting rights and will have the right to receive dividends, if any, prior to the time when the restrictions lapse.

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 2015 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 2015 Plan will accelerate in full.

Amendment and Termination. Our board of directors may amend or terminate the 2015 Plan or any portion thereof at any time. However, no amendment may impair the rights of a holder of an outstanding award without the holder's consent, and any action by our board of directors to increase the number of shares subject to the plan or extend the term of the plan is subject to the approval of our stockholders. Additionally, an amendment of the 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 2015 Plan will terminate and no further awards will be granted under the 2015 Plan.

2018 Employee Stock Purchase Plan

We adopted the 2018 Employee Stock Purchase Plan, which we refer to as our ESPP, which will be effective on the day prior to the first public trading date of our common stock. 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) 282,334 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% 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 5,000,000 shares of our common stock may be issued under the ESPP. The shares reserved for issuance under the ESPP may be authorized but unissued shares or reacquired shares.

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

Participation. Employees will enroll under the ESPP by completing a payroll deduction form permitting the deduction from their compensation of at least 1% of their compensation but not more than 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 15,000 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 under the ESPP and the maximum number of shares which a participant may elect to purchase in any single offering period. If there is a proposal to dissolve or liquidate us, then the ESPP will terminate immediately prior to the consummation of such proposed dissolution or liquidation, and any offering period then in progress will be shortened by setting a new purchase date to take place before the date of our dissolution or liquidation. We will notify each participant of such change in writing

at least 10 business days prior to the new exercise date. If we undergo a merger with or into another corporation or sell all or substantially all of our assets, each outstanding option will be assumed or an equivalent option substituted by the successor corporation or the parent or subsidiary of the successor corporation. If the successor corporation refuses to assume the outstanding options or substitute equivalent options, then any offering period then in progress will be shortened by setting a new purchase date to take place before the date of our proposed sale or merger. We will notify each participant of such change in writing at least 10 business days prior to the new exercise date.

Amendment and Termination. Our board of directors may amend, suspend or terminate the ESPP at any time. However, the board of directors may not amend the ESPP without obtaining stockholder approval within 12 months before or after such amendment to the extent required by applicable laws.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

In addition to the compensation arrangements, including employment, termination of employment and change in control arrangements, with our directors and executive officers, including those discussed in the sections titled “Management” and “Executive Compensation,” the following is a description of each transaction since our inception on August 5, 2015 and each currently proposed transaction in which:

- we have been or are to be a participant;
- the amounts involved exceeded or will exceed $120,000; and
- any of our directors, executive officers or holders 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 Convertible Preferred Stock Financing

In September 2015 and April 2016, we issued an aggregate of 8,878,227 shares of our Series A convertible preferred stock at a price per share of $6.90 for aggregate proceeds to us of $61.3 million. The table below sets forth the number of shares of Series A convertible preferred stock sold to our directors, executive officers or owners of more than 5% of our capital stock, or an affiliate or immediate family member thereof:

Name	Number of Shares of Series A Convertible Preferred Stock	Purchase Price ($)
Entities affiliated with Versant Ventures(1)	2,173,909	$15,000,000
The Column Group II, LP(2)	2,173,912	$15,000,000
Clarus Lifesciences III, L.P.(3)	1,565,216	$10,800,000
Entities affiliated with Frazier Healthcare Partners(4)	1,304,346	$ 9,000,000
Entities affiliated with Redmile Group(4)	869,562	$ 6,000,000
Patrick Mahaffy(5)	17,390	$ 120,000
Roger Allen(6)	13,042	$ 90,000
Darshan Moroak(6)	3,912	$ 27,000
Parminder Moroak(6)	4,347	$ 30,000
Opinder Moroak(6)	1,738	$ 12,000
Vladimir and Irina Yelensky(7)	4,347	$ 30,000

(1) Entities affiliated with Versant Ventures became beneficial owners of (in the aggregate) more than 5% of our capital stock upon the initial closing of the transaction. Thomas Woiwode, Ph.D., who is a member of our board of directors, is an affiliate of Versant Ventures.

(2) The Column Group II, LP became the beneficial owner of more than 5% of our capital stock upon the initial closing of the transaction. Peter Svennilson, who is a member of our board of directors, is an affiliate of The Column Group II, LP.

(3) Clarus Lifesciences III, L.P. became the beneficial owner of more than 5% of our capital stock upon the initial closing of the transaction. Nicholas Simon, who is a member of our board of directors, is an affiliate of Clarus Lifesciences III, L.P.

(4) The purchasers became beneficial owners of (in the aggregate) more than 5% of our capital stock upon the initial closing of the transaction.

(5) Mr. Mahaffy became a member of our board of directors upon the initial closing of the transaction. In May 2018, Mr. Mahaffy resigned as a member of our board of directors.

(6) The purchaser is an immediate family member of Andrew Allen, M.D., Ph.D., who is currently and was at the time of the transaction one of our executive officers and a member of our board of directors.
(7) The purchaser is an immediate family member of Roman Yelensky, Ph.D., who is currently and was at the time of the transaction one of our executive officers.

Series B Convertible Preferred Stock Financing

In September and October 2017, we issued an aggregate of 8,919,302 shares of our Series B convertible preferred stock at a price per share of $10.76 for aggregate proceeds to us of $96.0 million. The table below sets forth the number of shares of Series B convertible preferred stock sold to our directors, executive officers or owners of more than 5% of our capital stock, or an affiliate or immediate family member thereof:

Name	Number of Shares of Series B Convertible Preferred Stock	Purchase Price ($)
Entities affiliated with Versant Ventures(1)	929,020	$10,000,000
The Column Group II, LP(2)	929,022	$10,000,000
Clarus Lifesciences III, L.P.(3)	668,896	$ 7,200,000
Entities affiliated with Frazier Healthcare Partners(4)	557,412	$ 6,000,000
Entities affiliated with Lilly Asia Ventures(5)	1,393,533	$15,000,000
Entities affiliated with Redmile Group(4)	371,607	$ 4,000,000
Trinitas Capital G, L.P.(6)	1,858,045	$20,000,000
Patrick Mahaffy(7)	18,580	$ 200,000
Roger Allen(8)	8,695	$ 93,600
Darshan Moroak(8)	1,672	$ 18,000
Parminder Moroak(8)	1,857	$ 20,000
Opinder Moroak(8)	743	$ 8,000
Vladimir and Irina Yelensky(9)	1,857	$ 20,000

(1) Entities affiliated with Versant Ventures beneficially owned (in the aggregate) more than 5% of our capital stock immediately prior to and following the initial closing of the transaction. Dr. Woiwode, who is a member of our board of directors, is an affiliate of Versant Ventures.
(2) The Column Group II, LP beneficially owned more than 5% of our capital stock immediately prior to and following the initial closing of the transaction. Mr. Svennilson, who is a member of our board of directors, is an affiliate of The Column Group II, LP.
(3) Clarus Lifesciences III, L.P. beneficially owned more than 5% of our capital stock immediately prior to and following the initial closing of the transaction. Mr. Simon, who is a member of our board of directors, is an affiliate of Clarus Lifesciences III, L.P.
(4) The purchasers beneficially owned (in the aggregate) more than 5% of our capital stock immediately prior to and following the initial closing of the transaction.
(5) Entities affiliated with Lilly Asia Ventures became beneficial owners of (in the aggregate) more than 5% of our capital stock upon the initial closing of the transaction. Judith Li, who is a member of our board of directors, is an affiliate of Lilly Asia Ventures.
(6) The purchaser became the beneficial owner of more than 5% of our capital stock upon the initial closing of the transaction.
(7) Mr. Mahaffy was at the time of the transaction a member of our board of directors. In May 2018, Mr. Mahaffy resigned as a member of our board of directors.
(8) The purchaser is an immediate family member of Dr. Allen, who is currently and was at the time of the transaction one of our executive officers and a member of our board of directors.
(9) The purchaser is an immediate family member of Dr. Yelensky, who is currently and was at the time of the transaction one of our executive officers.

Series C Convertible Preferred Stock Financing

In June, July and August 2018, we issued an aggregate of 1,611,603 shares of our Series C convertible preferred stock at a price per share of $13.04 for aggregate proceeds to us of approximately $21.0 million. Of these shares, we sold 153,360 shares of Series C convertible preferred stock to entities affiliated with Redmile Group, which beneficially owned more than 5% of our capital stock immediately prior to and following the transaction.

Participation in this Offering

Certain of our stockholders, including entities affiliated with certain of our directors, have indicated an interest in purchasing an aggregate of approximately $35.0 million of shares of our common stock in this offering at the initial public offering price and on the same terms as the other purchasers in this offering. Of this aggregate amount, bluebird bio has indicated an interest in purchasing $10.0 million of shares of our common stock in this offering.

Director and Executive Officer Compensation

Please see “Management—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 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 Agreements

We entered into an amended and restated investor rights agreement with the purchasers of our outstanding convertible preferred stock, including entities with which certain of our directors are affiliated. As of August 31, 2018, the holders of approximately 19.4 million shares of our common stock, including the shares of common stock issuable upon the conversion of our Series A, 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 investor rights agreement also provides for a right of first refusal in favor of certain holders of convertible preferred stock with regard to certain issuances of our capital stock. The rights of first refusal will not apply to, and will terminate upon the consummation of, this offering.

Voting Agreement

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.

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 August 31, 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 August 31, 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.

Certain of our stockholders, including entities affiliated with holders of 5.0% or more of our capital stock and certain of our directors, have indicated an interest in purchasing an aggregate of approximately $35.0 million of shares of our common stock in this offering at the initial public offering price and on the same terms as the other purchasers in this offering. Of this aggregate amount, bluebird bio has indicated an interest in purchasing $10.0 million of shares of our common stock in this offering. However, because indications of interest are not binding agreements or commitments to purchase, the underwriters may determine to sell more, fewer or no shares in this offering to any of these stockholders, or any of these stockholders may determine to purchase more, fewer or no shares in this offering. The figures in the table below do not reflect the purchase of the shares in this offering by these potential investors in the amounts they have indicated an interest in purchasing.

The percentage of shares beneficially owned is computed on the basis of 22,161,886 shares of our common stock outstanding as of August 31, 2018, which reflects the assumed conversion of all of our outstanding shares of Series A, Series B and Series C convertible preferred stock into an aggregate of 19,409,132 shares of common stock. Shares of our common stock that a person has the right to acquire within 60 days after August 31, 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 below, the address for each beneficial owner listed is c/o Gritstone Oncology, Inc., 5858 Horton Street, Suite 210, Emeryville, California 94608.

	Beneficial Ownership Prior to this Offering				Beneficial Ownership After this Offering	
Name of Beneficial Owner	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 affiliated with Versant Ventures(1)	3,102,929	—	3,102,929	14.0%	3,102,929	11.0%
The Column Group II, LP(2)	3,102,934	—	3,102,934	14.0%	3,102,934	11.0%
Clarus Lifesciences III, L.P.(3)	2,234,112	—	2,234,112	10.1%	2,234,112	7.9%
Entities affiliated with Frazier Healthcare(4)	1,861,758	—	1,861,758	8.4%	1,861,758	6.6%
Trinitas Capital G, L.P.(5)	1,858,045	—	1,858,045	8.4%	1,858,045	6.6%
Entities affiliated with Lilly Asia Ventures(6)	1,393,533	—	1,393,533	6.3%	1,393,533	4.9%
Entities affiliated with Redmile Group(7)	1,394,529	—	1,394,529	6.3%	1,394,529	4.9%
Named Executive Officers and Directors:						
Andrew Allen, M.D., Ph.D.(8)	1,449,275	2,958	1,452,233	6.6%	1,452,233	5.1%
Karin Jooss, Ph.D.(9)	321,883	1,071	322,954	1.5%	322,954	1.1%
Raphaël Rousseau, M.D., Ph.D.	—	63,099	63,099	*	63,099	*
Richard Heyman, Ph.D.(10).	53,323	—	53,323	*	53,323	*
Steve Krognes	—	664	664	*	664	*
Judith Li	—	—	—	*	—	*
Nicholas Simon(11)	2,234,112	—	2,234,112	10.1%	2,234,112	7.9%
Peter Svennilson(12)	3,102,934	—	3,102,934	14.0%	3,102,934	11.0%
Thomas Woiwode, Ph.D.(13)	3,102,929	—	3,102,929	14.0%	3,102,929	11.0%
All directors and executive officers as a group (14 persons)(14)	10,550,904	132,521	10,683,425	47.9%	10,683,425	37.7%

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

(1) Consists of (i) 1,907,729 shares of common stock issuable upon conversion of Series A convertible preferred stock and 815,302 shares of common stock issuable upon conversion of Series B convertible preferred stock held by Versant Venture Capital V, L.P. (“VVC V”), (ii) 145,186 shares of common stock issuable upon conversion of Series A convertible preferred stock and 62,048 shares of common stock issuable upon conversion of Series B convertible preferred stock held by Versant Venture Capital V (Canada) LP (“VVC CAN”), (iii) 63,610 shares of common stock issuable upon conversion of Series A convertible preferred stock and 27,146 shares of common stock issuable upon conversion of Series B convertible preferred stock held by Versant Ophthalmic Affiliates Fund I, L.P. (“VOA”), and (iv) 57,384 shares of common stock issuable upon conversion of Series A convertible preferred stock and 24,524

shares of common stock issuable upon conversion of Series B convertible preferred stock held by Versant Affiliates Fund V, L.P. ("VAF V"). Versant Ventures V, LLC, or VV V, serves as the sole general partner of VOA, VAF V and VVC V and owns no shares directly. Versant Ventures V (Canada) GP-GP, Inc. ("VV V CAN GP"), serves as the sole general partner of Versant Ventures V (Canada), L.P. ("VV V CAN"), which serves as the sole general partner of VVC CAN and owns no shares directly. Samuel D. Colella, William J. Link, Bradley Bolzon, Ph.D., Robin L. Praeger, Kirk G. Nielson and Thomas Woiwode, Ph.D. are managing directors of VV V and directors of VV V CAN GP and share voting and dispositive power over the shares held by VOA, VAF V, VVC V and VVC CAN; however, they each disclaim beneficial ownership of the shares held by VOA, VAF V, VVC V and VVC CAN, except to the extent of their pecuniary interests therein. The address for each of the Versant Ventures entities is One Sansome Street, Suite 3630, San Francisco, CA 94104.

(2) Consists of 2,173,912 shares of common stock issuable upon conversion of Series A convertible preferred stock and 929,022 shares of common stock issuable upon conversion of Series B convertible preferred stock. The Column Group II GP, LP is the general partner of The Column Group II, LP. The managing partners of The Column Group II GP, LP are David Goeddel and Peter Svennilson. The managing partners of The Column Group II GP, LP may be deemed to have voting and investment power with respect to such shares. Messrs. Goeddel and Svennilson disclaim beneficial ownership of all shares above except to the extent of their pecuniary interest therein. The address of the above persons and entities is 1700 Owens Street, Suite 500, San Francisco, California 94158.

(3) Consists of 1,565,216 shares of common stock issuable upon conversion of Series A convertible preferred stock and 668,896 shares of common stock issuable upon conversion of Series B convertible preferred stock. Clarus Ventures III GP, L.P. ("GPLP"), as the sole general partner of Clarus Lifesciences III, L.P. ("Clarus"), may be deemed to beneficially own certain of the shares held by Clarus. The GPLP disclaims beneficial ownership of all shares held by Clarus in which the GPLP does not have an actual pecuniary interest. Clarus Ventures III, LLC ("GPLLC"), as the sole general partner of the GPLP, may be deemed to beneficially own certain of the shares held by Clarus. The GPLLC disclaims beneficial ownership of all shares held by Clarus in which it does not have an actual pecuniary interest. Each of Nicholas Galakatos, Dennis Henner, Robert Liptak, Nicholas Simon, Scott Requadt and Kurt Wheeler, as individual managing directors of the GPLLC, may be deemed to beneficially own certain of the shares held of record by Clarus. Each of Messrs. Galakatos, Henner, Liptak, Simon, Requadt and Wheeler disclaims beneficial ownership of all shares held of record by Clarus in which he does not have an actual pecuniary interest. The address of the above persons and entities is 101 Main Street, Suite 1210, Cambridge, Massachusetts 02142.

(4) Consists of (i) 1,015,078 shares of common stock issuable upon conversion of Series A convertible preferred stock and 433,794 shares of common stock issuable upon conversion of Series B convertible preferred stock held by Frazier Healthcare VII, L.P. and (ii) 289,268 shares of common stock issuable upon conversion of Series A convertible preferred stock and 123,618 shares of common stock issuable upon conversion of Series B convertible preferred stock held by Frazier Healthcare VII-A, L.P. The general partner of Frazier Healthcare VII, L.P. and Frazier Healthcare VII-A, L.P. is FHM VII, L.P., a Delaware limited partnership. The general partner of FHM VII, L.P. is FHM VII, LLC, a Delaware limited liability company. James Topper, Alan Frazier, Nader Naini, Nathan Every and Patrick Heron are members of FHM VII, LLC and may be deemed to share voting and investment power with respect to the shares held by FHM VII, LLC. The address of the above persons and entities is 601 Union, Two Union Square, Suite 3200, Seattle, Washington 98101.

(5) Consists of 1,858,045 shares of common stock issuable upon conversion of Series B convertible preferred stock. Trinitas Capital, Inc. is the general partner of Trinitas Capital G, L.P., and Cheng Zhou and Bing Han share management power of Trinitas Capital, Inc. and investment and voting power with respect to the shares held by Trinitas Capital G, L.P. The address of the above persons and entities is 401, 4/F Building 2, No. 39, Dongzhimenwai Street, Dongcheng District, Beijing, China.

(6) Consists of (i) 929,022 shares of common stock issuable upon conversion of Series B convertible preferred stock held by LAV Zenith Limited, (ii) 309,674 shares of common stock issuable upon conversion of Series B convertible preferred stock held by LAV Auspicum Limited and (iii) 154,837 shares of common stock issuable upon conversion of Series B convertible preferred stock held by LAV Aria Limited. LAV Zenith Limited, LAV Auspicum Limited and LAV Aria Limited are owned by LAV Biosciences Fund IV, L.P, LAV Biosciences Fund III, L.P., and Lilly Asia Ventures Fund III, L.P., respectively. LAV GP IV, L.P. is the General Partner of LAV Biosciences Fund IV, L.P. LAV GP III, L.P. is the General Partner of LAV Biosciences Fund III, L.P., and Lilly Asia Ventures Fund III, L.P. The Managing Partner of LAV GP III, L.P.

and LAV GP IV, L.P. is Yi Shi. Dr. Shi may be deemed to have voting and investment power with respect to the shares of our capital stock held by LAV Zenith Limited, LAV Auspicum Limited and LAV Aria Limited. Dr. Shi disclaims beneficial ownership of all such shares except to the extent of his pecuniary interest therein. The address of the above person and entities is Unit 1109-10, Two Chinachem Central, 26 Des Voeux Road Central, Hong Kong.

(7) Consists of (i) 434,782 shares of common stock issuable upon conversion of Series A convertible preferred stock, 178,931 shares of common stock issuable upon conversion of Series B convertible preferred stock and 50,913 shares of common stock issuable upon conversion of Series C convertible preferred stock held by Redmile Capital Offshore Fund II, Ltd., (ii) 207,246 shares of common stock issuable upon conversion of Series A convertible preferred stock, 108,981 shares of common stock issuable upon conversion of Series B convertible preferred stock and 36,420 shares of common stock issuable upon conversion of Series C convertible preferred stock held by Redmile Biopharma Investments I, L.P., (iii) 124,989 shares of common stock issuable upon conversion of Series A convertible preferred stock, 19,560 shares of common stock issuable upon conversion of Series B convertible preferred stock and 6,359 shares of Series C convertible preferred stock held by Redmile Strategic Master Fund, LP, (iv) 67,539 shares of common stock issuable upon conversion of Series A convertible preferred stock, 51,930 shares of common stock issuable upon conversion of Series B convertible preferred stock and 51,786 shares of common stock issuable upon conversion of Series C convertible preferred stock held by Redmile Capital Fund, LP, and (v) 35,006 shares of common stock issuable upon conversion of Series A convertible preferred stock, 12,205 shares of common stock issuable upon conversion of Series B convertible preferred stock and 7,882 shares of common stock issuable upon conversion of Series C convertible preferred stock held by Redmile Capital Offshore Fund, Ltd. Redmile Group, LLC is the investment manager to each of Redmile Capital Offshore Fund II, Ltd., Redmile Biopharma Investments I, L.P., Redmile Strategic Master Fund, LP, Redmile Capital Fund, LP and Redmile Capital Offshore Fund, Ltd. (collectively, the “Redmile Funds”) and, in such capacity, exercises shared voting and dispositive power over the securities held by the Redmile Funds and may be deemed to beneficially own such securities. Jeremy Green serves as the managing member of Redmile Group, LLC and as such shares voting and dispositive power over the securities held by the Redmile Funds. Redmile Group, LLC and Mr. Green each disclaim beneficial ownership of these securities, except to the extent of its or his pecuniary interest in such securities, if any. The address of the above person and entities is One Letterman Drive, Building D, Suite D3-300, San Francisco, California 94129.

(8) Consists of 1,449,275 shares of common stock, 1,147,342 of which shares will be vested within 60 days of August 31, 2018, and 301,933 of which shares will continue to be subject to our repurchase right.

(9) Consists of 321,883 shares of common stock, 201,177 of which shares will be vested within 60 days of August 31, 2018, and 120,706 of which shares will continue to be subject to our repurchase right.

(10) Consists of 53,323 shares of common stock, 38,082 of which shares will be vested within 60 days of August 31, 2018, and 15,241 of which shares will continue to be subject to our repurchase right.

(11) Consists of the shares described in footnote 3 above. Mr. Simon disclaims beneficial ownership of all such shares except to the extent of his pecuniary interests therein.

(12) Consists of the shares described in footnote 2 above. Mr. Svennilson disclaims beneficial ownership of all such shares except to the extent of his pecuniary interests therein.

(13) Consists of the shares described in footnote 1 above. Dr. Woiwode disclaims beneficial ownership of all such shares except to the extent of his pecuniary interests therein.

(14) Consists of (i) 2,110,929 shares of common stock, 1,601,437 of which shares will be vested within 60 days of August 31, 2018 and 509,492 of which shares will continue to be subject to our repurchase right, (ii) 132,521 shares of common stock that may be acquired pursuant to the exercise of stock options within 60 days of August 31, 2018, (iii) 5,913,037 shares of common stock issuable upon conversion of Series A convertible preferred stock and (iv) 2,526,938 shares of common stock issuable upon conversion of Series B convertible preferred stock.

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 investor 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 investor 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 convertible preferred stock, $0.0001 par value per share. As of August 31, 2018, there were outstanding:

- 22,161,886 shares of our common stock, on an as-converted basis, held by approximately 83 stockholders of record; and
- 2,376,054 shares of our common stock issuable upon exercise of outstanding stock options.

In connection with this offering, we expect to consummate a 1-for-6.9 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 convertible 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 convertible 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 convertible 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 9 to our 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 convertible 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 common stock. The issuance of our convertible 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 convertible 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 convertible preferred stock will be outstanding, and we have no present plan to issue any shares of convertible preferred stock.

Options

As of August 31, 2018, we had outstanding options to purchase 2,376,054 shares of our common stock, with a per share weighted-average exercise price of $3.94, under our 2015 Equity Incentive Plan.

Registration Rights

Under our amended and restated investors' rights agreement, based on the number of shares outstanding as of August 31, 2018, following the consummation of this offering, the holders of approximately 19.4 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 19.4 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

Based on the number of shares outstanding as of August 31, 2018, after the consummation of this offering, the holders of approximately 19.4 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 30% of these shares (or a lesser percent if the anticipated aggregate offering price to the public net of certain expenses would exceed $10 million) can request that we register all or a portion of their shares. Additionally, we will not be required to effect a demand registration during the period beginning 120 days prior to the filing and ending 180 days following the effectiveness of a company-initiated registration statement relating to a public offering of our securities.

Piggyback Registration Rights

Based on the number of shares outstanding as of August 31, 2018, 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 19.4 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 limit the number of shares such holders may include.

Form S-3 Registration Rights

Based on the number of shares outstanding as of August 31, 2018, after the consummation of this offering, the holders of approximately 19.4 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 any of at least 30% 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 million net of certain expenses related to the sale of the shares. 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 12 month period. Additionally, we will not be required to effect a Form S-3 registration during the period beginning 30 days prior to the filing and ending 90 days following the effectiveness of a company-initiated registration statement relating to a public offering of our securities.

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 of one 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 three 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 three-month period.

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

Some 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 makes 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 provide that a special meeting of stockholders may be called by our board of directors, or by our President or Chief Executive Officer.

Requirements for Advance Notification of Stockholder Nominations and Proposals

Our amended and restated bylaws 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 eliminate the right of stockholders to act by written consent without a meeting.

Classified Board; Election and Removal of Directors; Filling Vacancies

Our board of directors is 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 provides 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 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 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. Similarly, our amended and restated certificate of incorporation provides that the U.S. federal district courts are the exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act. Although our amended and restated certificate of incorporation contains 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, 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.”

The Nasdaq Global Market Listing

We have applied to list our common stock on the Nasdaq Global Market under the symbol “GRTS.”

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company, LLC. The transfer agent and registrar’s address is 6201 15th Avenue, Brooklyn, New York 11219.

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 August 31, 2018 and assuming an initial public offering price of $14.00 per share (the midpoint of the 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 convertible preferred stock at August 31, 2018, (2) no exercise of the underwriters' option to purchase additional shares of common stock and (3) no exercise of any of our other outstanding options, we will have outstanding an aggregate of approximately 28,233,314 shares of common stock. Of these shares, all of the shares of common stock to be sold in this offering, 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 August 31, 2018 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 are as follows:

Approximate Number of Shares	First Date Available for Sale into Public Market
22.2 million shares	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 to the extent permitted by the provisions of various vesting schedules

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 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, Cowen and Company, LLC and Barclays Capital 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 282,334 shares of common stock immediately after this offering (calculated as of August 31, 2018 on the basis of the assumptions (1)-(3) described above); or
- the average weekly trading volume of our common stock on the Nasdaq Global 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

Based on the number of shares outstanding as of August 31, 2018, after the consummation of this offering, the holders of approximately 19.4 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 under our 2015 Equity Incentive Plan, our 2018 Incentive Award Plan and our 2018 Employee Stock Purchase 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 (the "Code"), Treasury Regulations promulgated thereunder, judicial decisions, and published rulings and administrative pronouncements of the U.S. Internal Revenue Service (the "IRS"), in each case in effect as of the date hereof. These authorities may change or be subject to differing interpretations. Any such change or differing interpretation may be applied retroactively in a manner that could adversely affect a Non-U.S. Holder. We have not sought and will not seek any rulings from the IRS regarding the matters discussed below. There can be no assurance the IRS or a court will not take a contrary position to that discussed below regarding the tax consequences of the purchase, ownership and disposition of our common stock.

This discussion is limited to Non-U.S. Holders that hold our common stock as a "capital asset" within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not address all U.S. federal income tax consequences relevant to a Non-U.S. Holder's particular circumstances, including the impact of the Medicare contribution tax on net investment income. In addition, it does not address consequences relevant to Non-U.S. Holders subject to special rules, including, without limitation:

- U.S. expatriates and former citizens or long-term residents of the United States;
- persons subject to the alternative minimum tax;
- persons holding our common stock as part of a hedge, straddle or other risk reduction strategy or as part of a conversion transaction or other integrated investment;
- banks, insurance companies, and other financial institutions;
- brokers, dealers or traders in securities;
- "controlled foreign corporations," "passive foreign investment companies," and corporations that accumulate earnings to avoid U.S. federal income tax;
- partnerships or other entities or arrangements treated as partnerships for U.S. federal income tax purposes (and investors therein);
- tax-exempt organizations or governmental organizations;
- persons deemed to sell our common stock under the constructive sale provisions of the Code;
- tax-qualified retirement plans; and
- "qualified foreign pension funds" as defined in Section 897(l)(2) of the Code and entities all of the interests of which are held by qualified foreign pension funds.

If an entity treated as a partnership for U.S. federal income tax purposes holds our common stock, the tax treatment of a partner in the partnership will depend on the status of the partner, the activities of the partnership and certain determinations made at the partner level. Accordingly, partnerships holding our common stock and the partners in such partnerships should consult their tax advisors regarding the U.S. federal income tax consequences to them.

THIS DISCUSSION IS NOT TAX ADVICE. INVESTORS SHOULD CONSULT THEIR TAX ADVISORS WITH RESPECT TO THE APPLICATION OF THE U.S. FEDERAL INCOME TAX LAWS

TO THEIR PARTICULAR SITUATIONS AS WELL AS ANY TAX CONSEQUENCES OF THE PURCHASE, OWNERSHIP AND DISPOSITION OF OUR COMMON STOCK ARISING UNDER THE U.S. FEDERAL ESTATE OR GIFT TAX LAWS OR UNDER THE LAWS OF ANY STATE, LOCAL OR NON-U.S. TAXING JURISDICTION OR UNDER ANY APPLICABLE INCOME TAX TREATY.

Definition of Non-U.S. Holder

For purposes of this discussion, a "Non-U.S. Holder" is any beneficial owner of our common stock that is neither a "U.S. person" nor an entity treated as a partnership for U.S. federal income tax purposes. A U.S. person is any person that, for U.S. federal income tax purposes, is or is treated as any of the following:

- an individual who is a citizen or resident of the United States;
- a corporation created or organized under the laws of the United States, any state thereof, or the District of Columbia;
- an estate, the income of which is subject to U.S. federal income tax regardless of its source; or
- a trust that (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 titled "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 discussion below on effectively connected income, dividends paid to a Non-U.S. Holder will be subject to U.S. federal withholding tax at a rate of 30% of the gross amount of the dividends (or such lower rate specified by an applicable income tax treaty, provided the Non-U.S. Holder furnishes a valid IRS Form W-8BEN or W-8BEN-E (or other applicable documentation) certifying qualification for the lower treaty rate). A Non-U.S. Holder that does not timely furnish the required documentation, but that qualifies for a reduced treaty rate, may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS. Non-U.S. Holders should consult their tax advisors regarding their entitlement to benefits under any applicable tax treaties.

If dividends paid to a Non-U.S. Holder are effectively connected with the Non-U.S. Holder's conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, the Non-U.S. Holder maintains a permanent establishment in the United States to which such dividends are attributable), the Non-U.S. Holder will be exempt from the U.S. federal withholding tax described above. To claim the exemption, the Non-U.S. Holder must furnish to the applicable withholding agent a valid IRS Form W-8ECI, certifying that the dividends are effectively connected with the Non-U.S. Holder's conduct of a trade or business within the United States.

Any such effectively connected dividends will be subject to U.S. federal income tax on a net income basis at the regular 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 ("USRPI") by reason of our status as a U.S. real property holding corporation ("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, Cowen and Company, LLC and Barclays Capital Inc. are the representatives of the underwriters.

Underwriters	Number of Shares
Goldman Sachs & Co. LLC	
Cowen and Company, LLC	
Barclays Capital Inc.	
BTIG, LLC	
Total	6,071,428

The underwriters are 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 have an option to buy up to an additional 910,714 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 up to 910,714 additional shares from us.

	No Exercise	Full Exercise
Per Share	$	$
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 and our executive 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 our or 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 Goldman Sachs & Co. LLC, Cowen and Company, LLC and Barclays Capital Inc. 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.

Prior to the offering, there has been no public market for the shares. The initial public offering price has been negotiated among the company and the representatives. Among the factors to be

considered in determining the initial public offering price of the shares, in addition to prevailing market conditions, will be the company's historical performance, estimates of the business potential and earnings prospects of the company, an assessment of the company's 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 Market under the symbol "GRTS".

In connection with the offering, the underwriters may purchase and sell shares of our 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 common stock, and together with the imposition of the penalty bid, may stabilize, maintain or otherwise affect the market price of our common stock. As a result, the price of our 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 Market, in the over-the-counter market or otherwise.

We estimate that our share of the total expenses of the offering, excluding underwriting discounts and commissions, will be approximately $3.0 million. We have agreed to reimburse the underwriters for certain of their expenses in an amount up to $40,000.

We have agreed 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 trade 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 or instruments of the issuer (directly, as collateral securing other obligations or otherwise) 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 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.

Insider Participation in the Offering

Certain of our stockholders, including entities affiliated with holders of 5.0% or more of our capital stock and certain of our directors, have indicated an interest in purchasing an aggregate of approximately $35.0 million of shares of our common stock in this offering at the initial public offering price and on the same terms as the other purchasers in this offering. Of this aggregate amount, bluebird bio has indicated an interest in purchasing $10.0 million of shares of our common stock in this offering. If purchased by these persons, shares purchased by these entities (other than those affiliated with our directors) will not be subject to a lock-up restriction.

Because indications of interest are not binding agreements or commitments to purchase, any of the persons described above may determine to purchase more, fewer or no shares in this offering. In addition, the underwriters could determine to sell fewer shares to any of these persons than such persons have indicated an interest in purchasing or not to sell any shares to these persons.

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:

- To any legal entity which is a qualified investor as defined in the Prospectus Directive;
- 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
- In any other circumstances falling within Article 3(2) of the Prospectus Directive;

provided that no such offer or shares of our common stock shall require us or any underwriter to publish a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an “offer to 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, and 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 at 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 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 in 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 securities 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 securities 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 for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 of National Instrument 33-105 Underwriting Conflicts (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

Hong Kong

The securities 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) ("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) ("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

securities 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 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 shares may not be circulated or distributed, nor may the shares be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor (as defined under Section 4A of the Securities and Futures Act, Chapter 289 of Singapore (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 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 shares 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 ("Regulation 32").

Where the shares 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 shares 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 securities have 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 securities 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.

Australia

No placement document, prospectus, product disclosure statement or other disclosure document has been lodged with the Australian Securities and Investments Commission ("ASIC"), in relation to the offering. This offering document does not constitute a prospectus, product disclosure statement or other disclosure document under the Corporations Act 2001 (the "Corporations Act"), and does not purport to include the information required for a prospectus, product disclosure statement or other disclosure document under the Corporations Act.

Any offer in Australia of the shares may only be made to persons (the "Exempt Investors") who are "sophisticated investors" (within the meaning of section 708(8) of the Corporations Act), "professional investors" (within the meaning of section 708(11) of the Corporations Act) or otherwise pursuant to one or more exemptions contained in section 708 of the Corporations Act so that it is lawful to offer the shares without disclosure to investors under Chapter 6D of the Corporations Act.

The shares applied for by Exempt Investors in Australia must not be offered for sale in Australia in the period of 12 months after the date of allotment under the offering, except in circumstances where disclosure to investors under Chapter 6D of the Corporations Act would not be required pursuant to an exemption under section 708 of the Corporations Act or otherwise or where the offer is pursuant to a disclosure document which complies with Chapter 6D of the Corporations Act. Any person acquiring shares must observe such Australian on-sale restrictions.

This offering document contains general information only and does not take account of the investment objectives, financial situation or particular needs of any particular person. It does not contain any securities recommendations or financial product advice. Before making an investment decision, investors need to consider whether the information in this offering document is appropriate to their needs, objectives and circumstances, and, if necessary, seek expert advice on those matters.

Dubai International Financial Centre

This offering document relates to an Exempt Offer in accordance with the Offered Securities Rules of the Dubai Financial Services Authority ("DFSA"). This offering document is intended for distribution only to persons of a type specified in the Offered Securities Rules of the DFSA. It must not be delivered to, or relied on by, any other person. The DFSA has no responsibility for reviewing or verifying any documents in connection with Exempt Offers. The DFSA has not approved this prospectus nor taken steps to verify the information set forth in this prospectus and has no responsibility for the offering document. The securities to which this offering document relates may be illiquid and/or subject to restrictions on their resale. Prospective purchasers of the securities offered should conduct their own due diligence on the securities. If you do not understand the contents of this offering document you should consult an authorized financial advisor.

Switzerland

We have not and will not register with the Swiss Financial Market Supervisory Authority ("FINMA") as a foreign collective investment scheme pursuant to Article 119 of the Federal Act on

Collective Investment Scheme of 23 June 2006, as amended ("CISA"), and accordingly the securities being offered pursuant to this prospectus have not and will not be approved, and may not be licenseable, with FINMA. Therefore, the securities have not been authorized for distribution by FINMA as a foreign collective investment scheme pursuant to Article 119 CISA and the securities offered hereby may not be offered to the public (as this term is defined in Article 3 CISA) in or from Switzerland. The securities may solely be offered to "qualified investors," as this term is defined in Article 10 CISA, and in the circumstances set out in Article 3 of the Ordinance on Collective Investment Scheme of 22 November 2006, as amended ("CISO"), such that there is no public offer. Investors, however, do not benefit from protection under CISA or CISO or supervision by FINMA. This prospectus and any other materials relating to the securities are strictly personal and confidential to each offeree and do not constitute an offer to any other person. This prospectus may only be used by those qualified investors to whom it has been handed out in connection with the offer described in this prospectus and may neither directly or indirectly be distributed or made available to any person or entity other than its recipients. It may not be used in connection with any other offer and shall in particular not be copied and/or distributed to the public in Switzerland or from Switzerland. This prospectus does not constitute an issue prospectus as that term is understood pursuant to Article 652a and/or 1156 of the Swiss Federal Code of Obligations. We have not applied for a listing of the securities on the SIX Swiss Exchange or any other regulated securities market in Switzerland, and consequently, the information presented in this prospectus does not necessarily comply with the information standards set out in the listing rules of the SIX Swiss Exchange and corresponding prospectus schemes annexed to the listing rules of the SIX Swiss Exchange.

LEGAL MATTERS

The validity of the issuance of our common stock offered in this prospectus will be passed upon for us by Latham & Watkins LLP, Menlo Park, California. Cooley LLP, San Francisco, California, is acting as counsel for the underwriters in connection with this offering. Latham & Watkins LLP and certain attorneys and investment funds affiliated with the firm own shares of our convertible preferred stock which will be converted into an aggregate of 14,078 shares of common stock immediately prior to the completion of 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 (which contains an explanatory paragraph describing conditions that raise substantial doubt about the Company's ability to continue as a going concern as described in Note 2 to the financial statements). We have included our financial statements and related notes 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 Gritstone Oncology, 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.gritstoneoncology.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.

GRITSTONE ONCOLOGY, INC.

Index to Financial Statements

For the Years Ended December 31, 2016 and 2017

Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of
Gritstone Oncology, Inc.

Opinion on the Financial Statements

We have audited the accompanying balance sheets of Gritstone Oncology, Inc. (the Company) as of December 31, 2016 and 2017, and the related statements of operations and comprehensive loss, statements of stockholders' equity 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.

The Company's Ability to Continue as a Going Concern

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 2 to the financial statements, the Company has suffered recurring losses from operations and has stated that substantial doubt exists about the Company's ability to continue as a going concern. Management's evaluation of the events and conditions and management's plans regarding these matters are also described in Note 2. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

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.

Ernst & Young LLP

We have served as the Company's auditor since 2016.

Redwood City, California
May 4, 2018, except as to the second paragraph of Note 2, as to which the date is September , 2018.

The foregoing report is in the form that will be signed upon the completion of the reverse stock split described in the second paragraph of Note 2 to the financial statements.

/s/ Ernst & Young LLP

Redwood City, California
September 17, 2018

Gritstone Oncology, Inc.
Balance Sheets

(In thousands, except share amounts)

	December 31, 2016	December 31, 2017
Assets		
Current assets:		
Cash and cash equivalents	$ 12,410	$ 39,007
Marketable securities	25,097	46,946
Prepaid expenses and other current assets	884	2,526
Total current assets	38,391	88,479
Property and equipment, net	7,490	27,211
Deposits and other long-term assets	540	1,610
Total assets	$ 46,421	$ 117,300
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$ 762	$ 3,935
Accrued compensation	1,037	2,227
Accrued liabilities	695	1,490
Total current liabilities	2,494	7,652
Deferred rent, net of current portion	2,060	1,749
Other non-current liabilities	178	96
Lease financing obligation, net of current portion	—	10,521
Total liabilities	4,732	20,018
Commitments and contingencies (Note 6)		
Stockholders' equity:		
Convertible preferred stock, $0.0001 par value; 110,000,000 and 125,362,551 shares authorized at December 31, 2016 and 2017, respectively; 8,878,227 and 17,797,529 shares issued and outstanding at December 31, 2016 and 2017, respectively; aggregate liquidation preference of $61,260 and $157,268 at December 31, 2016 and 2017, respectively	61,139	156,937
Common stock, $0.0001 par value; 160,000,000 shares authorized at December 31, 2016 and 2017; 1,811,790 and 2,152,525 shares issued and outstanding at December 31, 2016 and 2017, respectively	1	1
Additional paid-in capital	802	2,045
Accumulated other comprehensive loss	(3)	(74)
Accumulated deficit	(20,250)	(61,627)
Total stockholders' equity	41,689	97,282
Total liabilities and stockholders' equity	$ 46,421	$ 117,300

See accompanying notes to financial statements.

Gritstone Oncology, Inc.
Statements of Operations and Comprehensive Loss

(In thousands, except share and per share amounts)

	Year Ended December 31	
	2016	2017
Operating expenses:		
Research and development	$ 13,916	$ 35,691
General and administrative	5,064	6,072
Total operating expenses	18,980	41,763
Loss from operations	(18,980)	(41,763)
Interest income, net	230	386
Net loss	(18,750)	(41,377)
Other comprehensive loss:		
Unrealized loss on marketable securities, net of tax	(3)	(71)
Comprehensive loss	$ (18,753)	$ (41,448)
Net loss per share, basic and diluted	$ (11.21)	$ (20.70)
Weighted-average number of shares used in computing net loss per share, basic and diluted	1,672,545	1,999,044
Pro forma net loss per share, basic and diluted (unaudited)		$ (3.02)
Weighted-average number of shares used in computing pro forma net loss per share, basic and diluted (unaudited)		13,699,938

See accompanying notes to financial statements.

Gritstone Oncology, Inc.
Statements of Stockholders' Equity

(In thousands, except share amounts)

	Convertible Preferred Stock		Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount	Shares	Amount				
Balances at December 31, 2015	3,699,259	$ 25,425	1,657,580	$ 1	$ 61	$ —	$ (1,500)	$ 23,987
Issuance of Series A convertible preferred stock at $6.90 per share for cash, net of issuance costs of $21	5,178,968	35,714	—	—	—	—	—	35,714
Unrealized loss on marketable securities, net of tax	—	—	—	—	—	(3)	—	(3)
Lapse of repurchase rights related to common stock issued pursuant to early exercises	—	—	154,210	—	53	—	—	53
Stock-based compensation	—	—	—	—	597	—	—	597
Issuance of common stock warrants for license	—	—	—	—	91	—	—	91
Net loss	—	—	—	—	—	—	(18,750)	(18,750)
Balances at December 31, 2016	8,878,227	61,139	1,811,790	1	802	(3)	(20,250)	41,689
Issuance of Series B convertible preferred stock in at $10.76 per share for cash, net of issuance costs of $210	8,919,302	95,798	—	—	—	—	—	95,798
Unrealized loss on marketable securities, net of tax	—	—	—	—	—	(71)	—	(71)
Lapse of repurchase rights related to common stock issued pursuant to early exercises	—	—	338,924	—	117	—	—	117
Issuance of common stock upon exercise of stock options	—	—	1,811	—	—	—	—	—
Stock-based compensation	—	—	—	—	1,126	—	—	1,126
Net loss	—	—	—	—	—	—	(41,377)	(41,377)
Balances at December 31, 2017	17,797,529	$156,937	2,152,525	$ 1	$ 2,045	$ (74)	$ (61,627)	$ 97,282

See accompanying notes to financial statements.

Gritstone Oncology, Inc.
Statements of Cash Flows

(In thousands)

	Year Ended December 31,	
	2016	2017
Operating activities		
Net loss	$ (18,750)	$ (41,377)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation	823	1,970
Net amortization of premiums and discounts on marketable securities	43	(158)
Stock-based compensation	597	1,126
Warrant issuance in conjunction with license agreement	91	—
Changes in operating assets and liabilities:		
Prepaid expenses and other current assets	(459)	(416)
Deposits and other long term assets	(487)	(78)
Accounts payable	(760)	2,273
Accrued compensation	1,018	1,190
Accrued and other non-current liabilities	532	810
Deferred rent	2,060	(311)
Net cash used in operating activities	(15,292)	(34,971)
Investing activities		
Purchase of marketable securities	(47,993)	(63,228)
Maturities of marketable securities	22,850	41,467
Purchase of property and equipment	(6,984)	(11,522)
Disposition of property and equipment	—	31
Net cash used in investing activities	(32,127)	(33,252)
Financing activities		
Proceeds from issuance of common stock under equity incentive plan	232	14
Proceeds from issuance of convertible preferred stock, net of issuance costs	35,714	95,798
Net cash provided by financing activities	35,946	95,812
Net (decrease) increase in cash, cash equivalents and restricted cash	(11,473)	27,589
Cash, cash equivalents and restricted cash at beginning of period	23,883	12,410
Cash, cash equivalents and restricted cash at end of period	$ 12,410	$ 39,999
Supplemental disclosures of non-cash investing and financing information		
Property and equipment purchases accrued but not yet paid	$ 61	$ 900
Building and improvements capitalized under lease financing transaction	$ —	$ 9,300
Receivable from lessor funded financing	$ —	$ 1,226

See accompanying notes to financial statements.

Gritstone Oncology, Inc.
Notes to Financial Statements

December 31, 2017

1. Organization and Description of Business

Gritstone Oncology, Inc. (the Company) is an immuno-oncology company developing personalized cancer immunotherapies to fight multiple cancer types. The Company was incorporated in the state of Delaware in August 2015, and is based in Emeryville, California and Cambridge, Massachusetts, with a manufacturing facility in Pleasanton, California. The Company operates in one segment.

2. Summary of Significant Accounting Policies

Basis of Presentation

The Company's financial statements have been prepared in accordance with United States generally accepted accounting principles (U.S. GAAP).

Reverse Stock Split

On September 11, 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-6.9 reverse split ("Reverse Split") of shares of the Company's common and convertible preferred stock to be effected prior to the completion of this offering. 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.

Unaudited Pro Forma Information

Immediately prior to the completion of this offering, all outstanding shares of convertible preferred stock will convert into common stock. 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 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 Company's initial public offering ("IPO").

Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and judgments that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities as of the date of the financial statements and the reported amounts of expenses during the reporting period. On an ongoing basis, management evaluates its estimates, including those related to preclinical study trial accruals, fair value of assets and liabilities, the fair value of leased buildings and other assumptions associated with lease financing transactions, and the fair value of common stock and stock-based compensation. Management bases its estimates on historical experience and on various other market-specific and relevant assumptions that management believes to be reasonable under the circumstances. Actual results could differ from those estimates.

Gritstone Oncology, Inc.
Notes to Financial Statements

December 31, 2017

Going Concern

The Company has incurred significant losses and negative cash flows from operations since its inception and had an accumulated deficit of $61.6 million at December 31, 2017 and does not expect to experience positive cash flows in the foreseeable future.

As of December 31, 2017, the Company had $86.0 million in cash, cash equivalents and marketable securities and working capital of $80.8 million. Management expects to incur additional losses in the future to conduct product research and development and to conduct pre-commercialization activities and recognizes the need to raise additional capital to fully implement its business plan. The Company intends to raise such capital through the sale of convertible stock, additional equity, debt financings or strategic alliances with third parties. However, there can be no assurance that the Company will be successful in acquiring additional funding at levels sufficient to fund its operations or on terms acceptable to the Company. These conditions raise substantial doubt about the Company's ability to continue as a going concern for a period of one year from the date of the issuance of these financial statements. If the Company is unsuccessful in its efforts to raise additional financing, the Company could be required to significantly reduce operating expenses and delay, reduce the scope of or eliminate some of its development programs or its future commercialization efforts, out-license intellectual property rights to its product candidates and sell unsecured assets, or a combination of the above, any of which may have a material adverse effect on the Company's business, results of operations, financial condition and/or its ability to fund its scheduled obligations on a timely basis or at all. The accompanying financial statements have been prepared assuming that the Company will continue as a going concern, which contemplates the realization of assets and the settlement of liabilities and commitments in the normal course of business. The financial statements do not reflect any adjustments relating to the recoverability and classification of assets or the amounts and classification of liabilities that might be necessary if the Company is unable to continue as a going concern.

Fair Value of Financial Instruments

Accounting Standards Codification (ASC) Topic 820, *Fair Value Measurement,* establishes a fair value hierarchy for instruments measured at fair value that distinguishes between assumptions based on market data (observable inputs) and the Company's own assumptions (unobservable inputs). Observable inputs are inputs that market participants would use in pricing the asset or liability based on market data obtained from sources independent of the Company. Unobservable inputs are inputs that reflect the Company's assumptions about the inputs that market participants would use in pricing the asset or liability, and are developed based on the best information available in the circumstances.

ASC 820 identifies fair value as the exchange price, or exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As a basis for considering market participant assumptions in fair value measurements, ASC 820 establishes a three-tier fair value hierarchy that distinguishes between the following:

- Level 1 inputs are quoted prices in active markets that are accessible at the market date for identical assets or liabilities.
- Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly.

Gritstone Oncology, Inc.
Notes to Financial Statements

December 31, 2017

- Level 3 inputs are unobservable inputs that reflect the Company's own assumptions about the assumptions market participants would use in pricing the assets or liability. Financial assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement.

To the extent that the valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair value requires more judgment. Accordingly, the degree of judgment exercised by the Company in determining fair value is greatest for instruments categorized in Level 3. A financial instrument's level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value instrument.

The carrying amounts reflected on the balance sheets for cash and cash equivalents, prepaid expenses and other current assets, accounts payable, accrued compensation and accrued liabilities approximate their fair values due to their short-term nature.

Cash, Cash Equivalents and Restricted Cash

Cash equivalents, which consist primarily of highly liquid investments with maturities of three months or less when purchased, are stated at cost which approximates fair value. These assets include investments in money market funds that invest in U.S. Treasury obligations and certificates of deposit which are stated at fair value.

The Company has issued a letter of credit under a lease agreement which has been collateralized by a cash deposit for an equal amount and is recorded within deposits and other long-term assets 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 (in thousands).

	December 31,	
	2016	2017
Cash and cash equivalents	$12,410	$39,007
Restricted cash	—	992
Total cash, cash equivalents and restricted cash	$12,410	$39,999

Marketable Securities

The Company invests its excess cash in investment grade short-term fixed income securities. Such investments in marketable securities are considered available for sale, and reported at fair value with unrealized gains and losses included as a component of accumulated other comprehensive income (loss). Marketable 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 balances 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 available-for-sale securities are included in interest and other income (expense), net. The cost of securities sold is determined using specific identification method.

Gritstone Oncology, Inc.
Notes to Financial Statements

December 31, 2017

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 the Company'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.

Concentrations of Credit Risk and Other Risks and Uncertainties

Financial instruments that potentially subject the Company to concentrations of credit risk consist of cash, cash equivalents, and marketable securities. Cash, cash equivalents and marketable securities are invested through banks and other financial institutions in the United States. Such deposits may be in excess of federally insured limits. The Company maintains cash equivalents and marketable securities with various high-credit-quality and capitalized financial institutions. The Company has not experienced any credit losses in such accounts and does not believe it is exposed to any significant credit risk on these funds.

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, and marketable securities and issuers of marketable securities to the extent recorded on the balance sheets. Through December 31, 2017, the Company has no off-balance sheet concentrations of credit risk.

The Company is subject to a number of risks similar to those of other preclinical-stage immunotherapy companies, including dependence on key individuals; the need to develop commercially viable therapeutics; competition from other companies, many of which are larger and better capitalized; and the need to obtain adequate additional financing to fund the development of its products. The Company currently depends on third-party suppliers for key materials and services used in its research and development manufacturing process, and is subject to certain risks related to the loss of these third-party suppliers or their inability to supply the Company with adequate materials and services.

Property and Equipment, Net

Property and equipment are stated at cost, less accumulated depreciation and amortization. Maintenance and repairs that do not improve or extend the lives of the respective assets are expensed to operations as incurred.

Gritstone Oncology, Inc.
Notes to Financial Statements

December 31, 2017

Depreciation is calculated using the straight-line method over the estimated useful lives of the respective assets, which are as follows:

Asset	Estimated Useful Life
Computer equipment and software	3 to 5 years
Furniture and fixtures	5 years
Laboratory equipment	5 to 7 years
Leasehold improvements	Shorter of useful life or lease term

Property and equipment includes a leased building which did not meet the sale-leaseback criteria and was recorded at its fair value plus the cost of improvements made during the constriction period. The leased building is being depreciated over the lease term to a residual value that will approximate the remaining lease financing obligation at the end of the lease (see Note 6).

Impairment of Long-Lived Assets

The Company evaluates long-lived assets, including property and equipment, for impairment whenever events or changes in business circumstances indicate that the carrying amount of the asset may not be fully recoverable. An impairment loss would be recognized when estimated undiscounted future cash flows expected to result from the use of the asset and its eventual disposition are less than its carrying amount. Impairment, if any, is measured as the amount by which the carrying amount of a long-lived asset exceeds its fair value. No impairment losses have been recorded for the periods presented.

Stock-Based Compensation

The Company measures and recognize compensation expense for all stock-based awards made to employees and directors based on the grant date estimated fair value of each award. Such expense is recognized on a straight-line basis over the requisite service period which is generally the vesting period for the entire award. Expense is adjusted for estimated forfeiters. Forfeitures of awards are estimated based on historical forfeiture experience and the experience of other companies in the same industry. The estimate of forfeitures will be adjusted over the service period to the extent that actual forfeitures differ, or are expected to differ, from prior estimates.

The valuation model used for calculating the fair value of awards for stock compensation expense is the Black-Scholes option-pricing model (the Black-Scholes model). The Black-Scholes model requires management to make assumptions and judgments about the variables used in the calculation, including the expected term (weighted-average period of time that the options granted are expected to be outstanding), the expected volatility of common stock, an assumed risk-free interest rate, and expected dividends the Company may pay. Management uses the simplified calculation of the expected term. Volatility is based on an average of the historical volatilities of the common stock of entities with characteristics similar to the Company's. The risk-free rate is based on the U.S. Treasury yield curve in effect at the time of grant for periods corresponding with the expected life of the option. The Company uses an assumed dividend yield of zero as the Company has never paid dividends and has no current plans to pay any dividends on its common stock.

Management recognizes stock-based compensation expense for stock options granted to non-employees based on the estimated fair value of the award on the measurement dates using the

Black-Scholes model. The estimated fair value of options granted to non-employees is re-measured at each reporting period using the Black-Scholes model until the awards vest and the resulting change in value, if any, is recognized in the statement of operations and comprehensive loss.

Research and Development Expenses

All research and development costs, including work performed by third parties, are expensed as incurred. Research and development costs consist of salaries and other personnel-related expenses, including associated stock-based compensation, consulting fees, laboratory supplies, and facility costs, as well as fees paid to other entities that conduct certain research and development activities on behalf of the Company. Costs to develop the Company's technologies are recorded as research and development expense unless certain costs which meet the criteria to be capitalized as internal-use software costs is met. Payments made prior to the receipt of goods or services to be used in research and development are capitalized until the goods are received or services are rendered.

The Company has and may continue to enter into license agreements to access and utilize certain technology. In each case, the Company evaluates of 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 acquisitions of businesses. For asset acquisitions, the upfront payments to acquire such licenses, as well as any future milestone payments, are immediately recognized as research and development expense when paid, provided that 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 payments to be made for future milestone events. The Company assess whether such contingent consideration meets the definition of a derivative and to date the Company has determined that such contingent consideration are not derivatives.

Pre-clinical costs are a component of research and development expense. The Company accrues and expenses pre-clinical trial activities performed by third parties based upon actual work completed in accordance with agreements established with its service providers. The Company determines the actual costs through discussions with internal personnel and external service providers as to the progress or stage of completion of services and the agreed-upon fee to be paid for such services.

Leases and Deferred Rent and Lease Financing Obligation

The Company rents its office space and facilities under non-cancelable operating lease agreements and recognize related rent expense on a straight-line basis over the term of the lease. The Company's lease agreements contain rent holidays, scheduled rent increases, and renewal options. Rent holidays and scheduled rent increases are included in the determination of rent expense to be recorded ratably over the lease term. 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. The Company 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 recognition of rent expense on a straight-line basis for the buildings the Company occupies.

Funding of leasehold improvements by the Company's landlord is accounted for as a tenant improvement allowance and recorded as current and non-current deferred rent liabilities and amortized on a straight-line basis as a reduction of rent expense over the term of the lease.

Gritstone Oncology, Inc.
Notes to Financial Statements

December 31, 2017

In certain arrangements, the Company is involved in the construction of improvements to buildings it is leasing. To the extent the Company is involved with the structural improvements of the construction project or takes construction risk, the Company is considered to be the owner of the building and related improvements for accounting purposes during the construction period. The Company records the fair value of the building and related improvements subject to the lease within property and equipment on the balance sheet. The Company also records a corresponding lease financing obligation on its balance sheet representing the amounts financed by the lessor for the building and lessor financed improvements. Lessor financed improvement incentives due but not yet received of $1.2 million at December 31, 2107 were recorded as prepaid expense and other current assets on the balance sheet. Such amounts were fully collected in April 2018. Once a construction project is complete, the Company considers the requirements for sale-leaseback accounting treatment. If the Company concludes the arrangement does not qualify for sale-leaseback accounting treatment, the building and related improvements remain on the Company's balance sheet and are subject to depreciation and assessment of impairment.

For such arrangements, at both pre and post the construction period, the Company bifurcates its lease payments into a portion allocated to the building and a portion allocated to the parcel of land on which the building has been built. The portion of the lease payments allocated to the land is treated for accounting purposes as operating lease payments, and therefore is recorded as rent expense in the statements of operations and comprehensive loss. The portion of the lease payments allocated to the building is further bifurcated into a portion allocated to interest expense and a portion allocated to reduce the lease financing obligation. The interest rate used for the lease financing obligation represents the Company's estimated incremental borrowing rate at the inception of the lease, adjusted to reduce any built in loss.

Income Taxes

Management accounts for income taxes under the liability method. Under this method, deferred tax assets and liabilities are determined based on the differences between the financial reporting and tax bases of assets and liabilities and are measured using the enacted tax rates that will be in effect when the differences are expected to reverse. Valuation allowances are established when necessary to reduce deferred tax assets to the amounts expected to be realized.

The Company recognizes and measures uncertain tax positions using a two—step approach set forth in authoritative guidance. The first step is to evaluate the tax position taken or expected to be taken by determining whether the weight of available evidence indicates that it is more likely than not that the tax position will be sustained in an audit, including resolution of any related appeals or litigation processes. The second step is to measure the tax benefit as the largest amount that is more than 50% likely to be realized upon ultimate settlement. Significant judgment is required to evaluate uncertain tax positions. 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. It is the Company's policy to recognize interest and penalties related to income tax matters in income tax expense. Through December 31, 2017, the Company had not accrued interest or penalties related to uncertain tax positions.

Gritstone Oncology, Inc.
Notes to Financial Statements

December 31, 2017

On December 22, 2017, the Securities and Exchange Commission Staff issued Staff Accounting Bulletin No. 118 (SAB 118) to address the accounting implications of 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 from the enactment date (see Note 11).

Comprehensive Loss

Comprehensive loss includes net loss and certain changes in stockholders' equity that are excluded from net loss, primarily unrealized losses on the Company's marketable securities.

Net Loss Per Share

Basic net loss per share is calculated by dividing the net loss be the weighted-average number of shares of common stock outstanding during the period, without consideration for common stock equivalents. Diluted net loss per share is the same as basic net loss per share, since the effects of potentially dilutive securities are antidilutive given the net loss for each period presented.

Recent 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 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 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 early adopted 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 February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)*. ASU 2016-02 amends a number of aspects of lease accounting, including requiring lessees to recognize almost all leases with a term greater than one year as a right-of-use asset and corresponding liability, measured at the present value of the lease payments. For public entities, this standard is effective for annual reporting periods beginning after December 31, 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. While the

Gritstone Oncology, Inc.
Notes to Financial Statements

December 31, 2017

Company is currently evaluating the impact of the adoption of this standard on its financial statements, the Company anticipates recognition of additional assets and corresponding liabilities related to leases on its balance sheets.

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 December 15, 2017, and interim periods within those years. Early adoption is permitted. Effective January 1, 2017, the Company adopted this guidance. The adoption did not have any impact on the Company's financial statements as the Company had no applicable cash receipts or cash payments.

In November 2016, the FASB issued ASU 2016-18, *Statement of Cash Flows (Topic 230): Restricted Cash*. ASU No. 2016-18 requires that a statement of cash flows explain the change during the period in the total cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. Therefore, amounts generally described as restricted cash and restricted cash equivalents should be included with cash and cash equivalents when reconciling the beginning and ending balances shown on the statement of cash flows. ASU 2016-18 is effective for fiscal years beginning after December 15, 2017, and interim periods within those years, and early adoption is permitted. ASU 2016-18 must be applied retrospectively to all periods presented. Effective January 1, 2017, the Company early adopted ASU 2016-18, with all adjustments reflected as of the beginning of the fiscal years reported.

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. Early adoption is permitted. The Company is currently evaluating the effect that this guidance will have on its financial statements.

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. Early adoption is permitted. Effective January 1, 2017, the Company early adopted this guidance using the full retrospective transition method. The adoption did not have any impact on the Company's financial statements as the Company had no changes to the terms or conditions of its share-based payment awards.

Gritstone Oncology, Inc.
Notes to Financial Statements

December 31, 2017

3. Cash Equivalents and Marketable Securities

The amortized cost, unrealized gains and losses and fair values of cash equivalents and marketable securities were as follows (in thousands):

	December 31, 2016,			
Description	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value
Money market funds	$ 11,509	$ —	$ —	$ 11,509
Commercial paper	11,473	—	(1)	11,472
Corporate debt securities	13,627	—	(2)	13,625
	$ 36,609	$ —	$ (3)	$36,606
Classified as:				
Cash equivalents				$ 11,509
Marketable securities				25,097
Total				$36,606

	December 31, 2017			
Description	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value
Money market funds	$ 27,711	$ —	$ —	$ 27,711
Commercial paper	32,257	—	(48)	32,209
Corporate debt securities	19,930	—	(26)	19,904
	$ 79,898	$ —	$ (74)	$79,824
Classified as:				
Cash equivalents				$32,878
Marketable securities				46,946
Total				$79,824

As of December 31, 2016 and 2017, the Company had a total of $37.5 million and $86.0 million in cash, cash equivalents and marketable securities, which includes $12.4 million and $39.0 million in cash and cash equivalents and $25.1 million and $46.9 million in marketable securities, respectively.

All marketable securities held as of December 31, 2017, had contractual maturities of less than one year. There have been no realized gains or losses on marketable securities for the periods presented. None of the Company's investments in marketable securities has been in an unrealized loss position for more than one year. The Company determined that it did have the ability and intent to hold all marketable securities that have been in a continuous loss position until maturity or recovery, thus there has been no recognition of any other-than-temporary impairment in the year ended December 31, 2017.

Gritstone Oncology, Inc.
Notes to Financial Statements

December 31, 2017

4. Fair Value Measurements

The Company's financial assets and liabilities subject to fair value measurements on a recurring basis and the level of inputs used in such measurements were as follows (in thousands):

	December 31, 2016			
Description	Total	Level 1	Level 2	Level 3
Money market funds	$11,509	$11,509	$ —	$ —
Commercial paper	11,472	—	11,472	—
Corporate debt securities	13,625	—	13,625	—
Total	$36,606	$11,509	$25,097	$ —

	December 31, 2017			
Description	Total	Level 1	Level 2	Level 3
Money market funds	$27,711	$27,711	$ —	$ —
Commercial paper	32,209	—	32,209	—
Corporate debt securities	19,904	—	19,904	—
Total	$79,824	$27,711	$52,113	$ —

The Company measures the fair value of money market funds based on quoted prices in active markets for identical securities. Commercial paper and corporate debt securities are valued 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 between Level 1 and Level 2 during the periods presented.

5. Property and Equipment, Net

Property and equipment and related accumulated depreciation and amortization are as follows (in thousands):

	December 31,	
	2016	2017
Computer equipment and software	$ 197	$ 353
Furniture and fixtures	548	785
Laboratory equipment	4,623	10,515
Leasehold improvements	2,947	2,977
Buildings and related improvements capitalized under a lease financing transaction	—	15,371
	8,315	30,001
Less accumulated depreciation and amortization	(825)	(2,790)
Total property and equipment, net	$7,490	$27,211

Gritstone Oncology, Inc.
Notes to Financial Statements

December 31, 2017

Depreciation and amortization expense was $0.8 million and $2.0 million for the periods ended December 31, 2016 and 2017, respectively.

6. Commitments and Contingencies

Leases

In November 2015, the Company entered into an 84-month non-cancelable operating lease, effective March 2016, for a new facility in Emeryville, California, with laboratory and office space. The lease agreement includes an escalation clause for increased rent and a renewal provision allowing the Company to extend this lease for an additional three years at the prevailing rental rate.

In February 2016, the Company entered into a 67-month non-cancellable operating lease effective October 2016 for a new facility in Cambridge, Massachusetts, with laboratory and office space. In conjunction with signing the lease, the Company paid a cash security deposit of $0.3 million. The lease agreement includes an escalation clause for increased rent and a renewal provision allowing the Company to extend this lease for an additional three years at the prevailing rental rate. The lessor provided the Company a tenant improvement allowance for a total of $2.1 million to complete laboratory and office renovations. The scope of these tenant improvements were considered to be “normal tenant improvements” under the lease accounting guidance. The Company recorded the tenant allowance received as leasehold improvements under the property and equipment account and deferred rent liability on the accompanying balance sheets.

In March 2017, the Company entered into a noncancelable lease (the Pleasanton Lease) to lease 42,620 square feet of office, cleanroom, and laboratory support manufacturing space in Pleasanton, California (the Pleasanton Facility). Subsequently, in April 2017, the Company took possession of the space. The Pleasanton Lease includes a free rent period, escalating rent payments and a term that expires on November 30, 2024. The Company has the option to extend the lease term for a period of five years at the then market rental rate. The Company’s obligation to pay rent commenced on December 1, 2017. The Company obtained an irrevocable letter of credit in March 2017 in the initial amount of $1.0 million as a security deposit to the Pleasanton Lease, which may be drawn down by the landlord in the event the Company fails to fully and faithfully perform all of its obligations. The letter of credit may be reduced based on certain levels of cash and cash equivalents the Company holds. As of December 31, 2017, none of the irrevocable letter of credit amount has been drawn. The Pleasanton Lease further provides that the Company is obligated to pay to the landlord its proportionate share of certain basic operating costs, including taxes and operating expenses.

In connection with the Pleasanton Lease, the Company received a tenant improvement allowance of $1.2 million from the landlord for the costs associated with the design, development and construction of tenant improvements for the Pleasanton Facility building. The scope of the tenant improvements did not qualify under the lease accounting guidance as “normal tenant improvements” and the Company was deemed owner of the leased building during the construction period for accounting purposes. The Company has therefore capitalized the $9.3 million fair value of the leased building within property and equipment, net, and recognized a corresponding non-current lease financing obligation in the balance sheet as of December 31, 2017. The fair value of the leased building was estimated using a market approach that utilized comparable observable sales for similar assets (Level 2 inputs). The Company has also recognized building improvements totaling $6.1 million for additions to the leased building incurred by the Company during the construction period, of which $1.2 million were due but had not yet

been received from the landlord as of December 31, 2017 and were recorded as an increase to the lease financing obligation and prepaid and other current assets on the balance sheet. Such amounts were subsequently reimbursed by the landlord in April 2018. In November 2017, construction on the Pleasanton Facility was substantially completed and the leased property was placed into service. The Company determined the completed construction project did not qualify for sale-leaseback accounting due to the collateral held by the landlord in the form of a letter of credit and instead has been accounted for as a financing lease transaction. The leased building for the Pleasanton Facility and related improvements remain on the Company's balance sheet as of December 31, 2017 and rental payments associated with the Pleasanton Lease have been allocated to operating lease expense for the ground underlying the leased building and principal and interest payments on the lease financing obligation.

From March 2017 through December 31, 2017, the Company recorded rent expense associated with the ground lease of approximately $78,000 in the statements of operations and comprehensive loss. Total interest, which represents the cost of the lease financing obligation under the Pleasanton Lease agreement, was approximately $64,000 for the year ended December 31, 2017, which was recognized within the statement of operations and comprehensive loss. The allocation of the Pleasanton Lease payment to ground lease rent expense and principal and interest expense on the lease financing obligation was estimated using income and market approaches that utilized comparable observable sales for similar assets, land capitalization rates and an estimate of the Company's incremental borrowing rate (Level 2 and Level 3 inputs).

As of December 31, 2017, minimum annual payments under the Company's non-cancelable lease agreements and lease financing obligation are as follows (in thousands):

	Lease Financing Obligation	Operating Lease
Year ending December 31:		
2018	$ 708	$ 1,642
2019	794	1,700
2020	818	1,751
2021	843	1,803
2022	868	1,118
Thereafter	1,737	396
Total minimum payments	5,768	$ 8,410
Less: Amount representing interest expense	(5,137)	
	631	
Residual value of lease financing obligation	9,896	
	10,527	
Less: Lease financing obligation, short-term	(6)	
Lease financing obligation, long-term	$ 10,521	

Rent expense was $2.4 million and $1.2 million for the years ended December 31, 2016 and 2017, respectively.

Gritstone Oncology, Inc.
Notes to Financial Statements

December 31, 2017

Agreement with CRO

In September 2017, the Company entered into a contract research and development agreement with a third party contract research organization (CRO) to provide research, analysis and antibody samples to further the Company's development of personalized immunotherapies in the treatment of cancer. Under the agreement, the Company paid an upfront payment of $0.5 million to the CRO. The upfront payment has been capitalized and will be recognized as research and development expense using the straight-line method over the term of the agreement, which is one year. The Company is also obligated to pay up to $0.4 million to the CRO upon the completion of certain phases of the research services. These costs will be recorded to research and development expense over the expected period of each phase of the research services. The Company is also obligated to pay the CRO certain milestone payments of up to $36.4 million on achievement of specified events. None of these events had occurred as of December 31, 2017. During 2017, the Company recognized a total of $0.1 million of research and development expense under the agreement.

Guarantees and Indemnifications

The Company, as permitted under Delaware law and in accordance with its certification of incorporation and bylaws, and pursuant to indemnification agreements with certain of its officers and directors, indemnifies its officers and directors for certain events or occurrences, subject to certain limits, which the officer or director is or was serving at the Company's request in such capacity. 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 limits the Company's exposure and may enable it 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.

7. License Agreements

Arbutus Biopharma Corporation

In October 2017, the Company entered into an Exclusive License Agreement with Arbutus Biopharma Corporation (Arbutus). Under the license agreement, the Company has a worldwide, exclusive license to certain technology of Arbutus, including Arbutus' portfolio of proprietary and clinically validated lipid nanoparticle products and associated intellectual property, as well as technology transfer of Arbutus' manufacturing know-how. Under this license agreement, the Company paid an upfront payment of $5.0 million which was included in research and development expenses during 2017. The Company also reimbursed Arbutus for materials and personnel costs totaling $0.2 million, which were included in research and development expenses during 2017. The Company is obligated to pay Arbutus for services rendered and certain milestone payments up to an aggregate of $123.5 million on achievement of specified events, and low single-digit royalties on sales of its licensed products. None of these events had occurred as of December 31, 2017 and no royalties were due from the sale of licensed products.

Gritstone Oncology, Inc.
Notes to Financial Statements

December 31, 2017

Non-Profit Hospital Cancer Center

In January 2016, the Company entered into an Exclusive License Agreement with a non-profit hospital cancer center. Under the license agreement, the Company has an exclusive license to utilize certain patents and know-how relating to immunotherapy for an insignificant upfront payment, cash milestone payments on achievement of specified events, and a low single digit royalty on sales of licensed products. The achievement of the milestones and payment of royalties is dependent upon obtaining regulatory approval. None of these events had occurred as of December 31, 2016 or 2017 and no royalties were due from the sales of licensed products. The Company also issued a ten-year warrant to the cancer center for the right to purchase 40,257 shares of its common stock at $0.35 per share. The estimated fair value of the warrant was not significant and was included in research and development expense and additional paid-in capital. The warrant was exercised in full in January 2018.

8. Balance Sheet Components

Prepaid Expenses and Other Assets

Prepaid expenses and other current assets consist of the following (in thousands):

	December 31,	
	2016	2017
Receivable from landlord	$ —	$1,226
Prepaid rent	355	93
Interest receivable and other receivables	171	484
Prepaid research and development-related expenses	244	628
Other	114	95
Total prepaid expenses and other current assets	$ 884	$2,526

Accrued Liabilities

Accrued current liabilities consist of the following (in thousands):

	December 31,	
	2016	2017
Deferred rent	$ 336	$ 381
Research and development-related expenses	164	683
Other	195	426
Total accrued current liabilities	$ 695	$1,490

9. Convertible Preferred Stock and Common Stock

Convertible Preferred Stock

Series A Equity Financing

The Company entered into a Series A preferred stock purchase agreement with certain investors on September 18, 2015, and upon approval by the Company's Board of Directors, the Company completed a Series A convertible preferred stock financing (Series A—First Tranche) at a price per

share of $6.90. The net cash proceeds from this round of financing totaled $25.4 million, and 3,699,259 shares of Series A convertible preferred stock were issued. Issuance costs totaled $0.1 million and were recorded as a reduction of the proceeds.

On April 1, 2016, and upon approval by the Company's Board of Directors, the Company completed a Series A convertible preferred stock financing (Series A—Second Tranche) at a price per share of $6.90. The net cash proceeds from this round of financing totaled $35.7 million, and 5,178,968 shares of Series A convertible preferred stock were issued. Issuance costs totaled $0.02 million and were recorded as a reduction of the proceeds.

Upon approval by the Company's Board of Directors and a majority of the holders of the Series A convertible preferred stock, the Company could proceed with the third closing of the Series A convertible preferred stock for a total of 5,918,840 shares at a purchase price of $6.90 per share (Series A—Third Tranche). However, for a period of 90 days following such approval, the Company may solicit alternative financing at financially superior terms to those of the Series A—Third Tranche, including a purchase price greater than $6.90 per share (the Superior Financing Transaction). If approved by the Board of Directors, the Company's obligation to complete the Series A—Third Tranche shall terminate and the Superior Financing Transaction would proceed. Each Series A convertible preferred stockholder will have the right to purchase at least 50% of its original Series A—Third Tranche amount in the Superior Financing Transaction. The Series A—Second Tranche and Series A—Third Tranche rights are considered to be mutual options as neither the purchasers nor the Company have a commitment or obligation to purchase or sell additional shares. As such, these rights are not accounted for separately. In connection with the Company's Series B Equity Financing the Company's Board of Directors and investors terminated the ability to complete the Series A—Third Tranche.

Series B Equity Financing

The Company entered into a Series B preferred stock purchase agreement with certain investors on September 6, 2017 and October 20, 2017, and upon approval by the Company's Board of Directors, the Company completed a Series B convertible preferred stock financing (Series B) at a price per share of $10.76. The net cash proceeds totaled $95.8 million and 8,919,302 shares of Series B convertible preferred stock were issued. Issuance costs totaled $0.2 million and were recorded as a reduction of the proceeds.

The preferred stock has various features, including convertibility and non-cumulative dividends. The Company determined that none of the features required bifurcation from the underlying shares, either because they are clearly and closely related to the underlying shares or because they do not meet the definition of a derivative. The Series A and Series B convertible preferred stock are considered permanent equity and have not been accreted up to their redemption value. The Second and Third Tranche rights are considered to be mutual options as neither the purchasers nor the Company have a commitment or obligation to purchase or sell additional shares. As such, these rights are not accounted for separately. Moreover, in any such redemption (i.e. deemed liquidation) all equity holders (common and preferred) will receive the same form of consideration. The preferred stockholders cannot contractually redeem their shares, or redeem their shares through separate negotiation, without the Company's common stockholders being able to also redeem their shares for the same form of consideration.

Gritstone Oncology, Inc.
Notes to Financial Statements

December 31, 2017

At December 31, 2016, convertible preferred stock consisted of the following (in thousands, except share and per share amounts):

	Shares Authorized	Shares Issued and Outstanding	Issuance Price Per Share	Carrying Value	Liquidation Preference
Series A—First Tranche	110,000,000	3,699,259	$ 6.90	$25,425	$ 25,525
Series A—Second Tranche	—	5,178,968	$ 6.90	35,714	35,735
Total convertible preferred stock	110,000,000	8,878,227		$61,139	$ 61,260

At December 31, 2017, convertible preferred stock consisted of the following (in thousands, except share and per share amounts):

	Shares Authorized	Shares Issued and Outstanding	Issuance Price Per Share	Carrying Value	Liquidation Preference
Series B	64,102,551	8,919,302	$ 10.76	$ 95,798	$ 96,008
Series A—First Tranche	61,260,000	3,699,259	$ 6.90	25,425	25,525
Series A—Second Tranche	—	5,178,968	$ 6.90	35,714	35,735
Total convertible preferred stock	125,362,551	17,797,529		$ 156,937	$ 157,268

The rights, preferences, and privileges of the convertible preferred stock are as follows:

Redemption Rights

The preferred stock is not redeemable by holders unless a redemption event occurs. A redemption event will only occur upon the liquidation or winding up of the Company, a greater than 50% change in control, or the sale of substantially all of the assets of the Company. Management has also elected not to adjust the carrying values of the Series A and Series B convertible preferred stock to the redemption value of such shares, since it is uncertain whether or when a redemption event will occur. Subsequent adjustments to increase the carrying value to the redemption values will be made when it becomes probable that such a redemption will occur.

Dividends Rights

The holders of Series A and Series B convertible preferred stock are entitled to receive dividends, from any assets legally available, prior and in preference to any declaration or payment of any dividend to the common stockholders, at the rate of 8% of the original issue price (as determined on a per annum basis and on an as-converted basis). Such dividends are payable if and when declared by the Board of Directors and are not cumulative. After payment of such dividends, any additional dividends shall be distributed among the holders of the Series A and Series B convertible preferred stock and common stock pro rata based on the number of shares of common stock then held by each holder (assuming conversion of all such preferred stock into common stock). As of December 31, 2016 and 2017, no such dividends had been declared or accrued.

Liquidation Rights

In the event of any liquidation, dissolution, or winding up of the Company, whether voluntary or involuntary (Liquidation Event), the holders of Series B convertible preferred stock are entitled to

Gritstone Oncology, Inc.
Notes to Financial Statements

December 31, 2017

receive, prior and in preference to any distribution of any of the assets of the Company to the holders of the Series A convertible preferred stock, $10.76 per share (as adjusted for any stock splits, combinations, reorganizations, or similar transactions, plus any declared and unpaid dividends). After payment of the above, the holders of Series A convertible preferred stock are entitled to receive, prior and in preference to any distribution of any of the assets of the Company to the holders of common stock, $6.90 per share (as adjusted for any stock splits, combinations, reorganizations, or similar transactions, plus any declared and unpaid dividends).

If, upon the occurrence of such an event, the proceeds to be distributed are insufficient to permit the payment to such holders of the full preferential amounts, then the entire amount legally available for distribution shall be distributed among the holders of the Series A and Series B preferred stock in proportion to the full preferential amount that each such holder is otherwise entitled to receive had such proceeds been available.

After liquidation preference payments have been made to the holders of the convertible preferred stock as described above, all of the remaining assets and funds of the Company are to be distributed ratably among the holders of the preferred and common stock, as if the preferred stock had been converted to common stock. However, Series B holders are limited to the greater of (1) $53.82 per share (as adjusted for any stock splits, combinations, reorganizations or similar transactions) and (2) the amount the holder would have received if all shares of Series B convertible preferred stock had been converted to common stock prior to such liquidation, dissolution, or winding up of the Company. Series A holders are limited to the greater of (1) $34.50 per share (as adjusted for any stock splits, combinations, reorganizations or similar transactions) and (2) the amount the holder would have received if all shares of Series A convertible preferred stock had been converted to common stock prior to such liquidation, dissolution, or winding up of the Company.

Voting Rights

Except as otherwise required by law, the holders of common and Series A and Series B convertible preferred stock vote together as a single class. The holders of the convertible preferred stock are entitled to the number of votes equal to the number of shares of common stock into which the convertible preferred stock could be converted on the record date for the vote, or upon the written consent of the stockholders.

The holders of the Series A convertible preferred stock are entitled to elect three directors of the Company, the holders of the Series B convertible preferred stock are entitled to elect one director of the Company, and the holders of common stock shall be entitled to elect one director of the Company.

Conversion Rights

Each share of Series A and Series B convertible preferred stock, at the option of the holder and at any time after the date of issuance, is convertible into the number of shares of common stock determined by dividing the respective original issue price by the conversion price (the Conversion Price). At December 31, 2017, the Series A and Series B Conversion Prices are $6.90 and $10.76, respectively, and are subject to certain future adjustments.

Conversion occurs at the conversion rate (i) upon the closing of the sale of common stock at a price of at least $21.53 per share, in a firm commitment underwritten public offering pursuant to an

Gritstone Oncology, Inc.
Notes to Financial Statements

December 31, 2017

effective registration statement under the Securities Act of 1933, as amended, resulting in at least $50.0 million of net proceeds, or (ii) at the election of (a) the holders of at least a majority of the then-outstanding shares of such Series A preferred stock and (b) the holders of at least a majority of the then-outstanding shares of such Series B preferred stock. Through December 31, 2017, the Company has sufficient authorized and unissued common shares available to settle any conversion event.

Common Stock

The Company is authorized to issue 160,000,000 shares of common stock. Holders of common stock are generally entitled to one vote per share on all matters to be voted upon by the stockholders of the Company.

Subject to the preferences that may be applicable to any outstanding shares of preferred stock, the holders of common stock are entitled to receive ratably such dividends, if any, as may be declared by the Board of Directors. No dividends have been declared to date.

10. Stock-Based Compensation

2015 Equity Incentive Plan

In August 2015, the Board of Directors approved the 2015 Equity Incentive Plan (the Plan). Under the Plan, 3,019,323 shares of common stock have been reserved for the issuance of ISOs, NSOs, stock bonuses, and rights to acquire restricted stock to employees, officers, directors, and consultants of the Company as of December 31, 2017. The Plan allows for the issuance of non-statutory and incentive stock options (ISOs) to employees and non-statutory stock options (NSOs) to non-employees. ISOs and NSOs may be granted with exercise prices at no less than 100% of the fair value of the common stock on the date of grant. Options granted to a 10% stockholder shall be at no less than 110% of the fair value, and ISO stock option grants to such 10% stockholders expire five years from the date of grant. For stock awards granted during 2016 and 2017, deemed fair values of $2.21 and $3.17 per common share were used in calculating stock based compensation expense, as determined by management using hindsight.

The Company permits early exercise of certain stock options prior to vesting to certain directors, officers, and employees. Any shares issued pursuant to unvested options are restricted and subject to repurchase by the Company until the conditions for vesting are met. 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, then in stockholders' equity once those shares vest. Upon termination of employment of an option holder, the Company has the right to repurchase, at the original purchase price, any unvested options. The shares issued pursuant to unvested options have not been included in shares issued and outstanding on the balance sheet and statement of stockholders' equity as such shares are not considered outstanding for accounting purposes.

ISOs granted under the Plan generally vest 25% after the completion of 12 months of service, and the balance vests in equal monthly installments over the next 36 months of service and expires 10 years from the grant date, unless subject to provisions regarding 10% stockholders. NSOs vest per the specific agreement and expire 10 years from the date of grant.

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").

Valuation of Stock Options

The fair value of each stock option granted to an employee or a director was estimated as of the date of grant using the Black-Scholes model with the following weighted-average assumptions:

	Year Ended December 31,	
	2016	2017
Expected dividend yield	—	—
Expected term	6.05 years	6.04 years
Risk-free interest rate	1.43%	1.97%
Expected volatility	103%	94%

Management's calculations are based on a grant date valuation approach. Using the Black-Scholes model, the weighted-average grant-date fair value of employee stock options granted was $2.19 and $2.00 per share during the years ended December 31, 2016 and 2017, respectively.

Stock Option Activity

A summary of the stock plan activity is as follows:

	Options Available for Grant	Outstanding Options	Weighted Average Exercise Price
Balances at December 31, 2015	2,069,587	259,888	$ 0.35
Granted	(957,591)	957,591	0.38
Exercised	—	(683,653)	0.35
Forfeited	24,637	(24,637)	0.35
Repurchased	11,594	—	—
Balances at December 31, 2016	1,148,227	509,189	0.41
Reserved	362,318	—	—
Granted	(900,257)	900,257	1.13
Exercised	—	(41,665)	0.35
Forfeited	15,941	(15,941)	0.46
Balances at December 31, 2017	626,229	1,351,840	0.89

For the years ended December 31, 2016 and 2017, the total intrinsic value of stock option awards exercised was $1.3 million and $0.08 million, respectively, determined at the date of option exercise, and the total cash received upon exercise of stock options was $0.2 million and $0.01 million,

respectively. The total intrinsic value of options exercisable was $0.5 million as of December 31, 2017. The aggregate intrinsic value was calculated as the difference between the exercise prices of the underlying stock option awards and the estimated fair value of the common stock on the date of exercise.

Additional information related to the status of options at December 31, 2016, is as follows:

	Options	Weighted Average Exercise Price per Share	Weighted-average Remaining Contractual Life (Years)
Outstanding	509,189	$ 0.41	9.63
Exercisable	72,027	0.35	9.26
Vested and expected to vest	1,202,140	0.37	9.28

Additional information related to the status of options at December 31, 2017, is as follows:

	Options	Weighted Average Exercise Price per Share	Weighted-Average Remaining Contractual Life (Years)	Aggregate Intrinsic Value (in thousands)
Outstanding	1,351,840	$ 0.89	9.13	$ 3,087
Exercisable	174,760	0.40	8.59	486
Vested and expected to vest	1,690,243	0.74	8.83	4,113

As of December 31, 2016 and 2017, $2.3 million and $2.9 million of total unrecognized compensation cost related to non-vested employee and consultant options is expected to be recognized over a weighted-average period of 3.24 and 2.75 years, respectively. The total fair value of shares vested during the period ended December 31, 2016 and 2017 was $0.4 million and $1.1 million, respectively.

During the years ended December 31, 2016 and 2017, NSOs were issued to non-employees to purchase 2,898 and 26,086 shares of common stock for current and future services at weighted-average exercise prices of $0.76 and $0.76 per share, respectively. The options were valued using the Black-Scholes model based on the following assumptions: expected term of 9.11 years, risk-free interest rate of 2.25%, volatility of 100%, and no dividend yield. The fair value of these options is expensed over the vesting period. Compensation expense for these awards has not been material for any period presented.

Gritstone Oncology, Inc.
Notes to Financial Statements

December 31, 2017

Stock-Based Compensation Expense

Total stock-based compensation for all options granted to employees and consultants, before taxes is as follows (in thousands):

	Year Ended December 31,	
	2016	2017
Research and development expenses	$ 385	$ 888
General and administrative expenses	212	238
Total	$ 597	$ 1,126

Liability for Early Exercise of Stock Options

As of December 31, 2016 and 2017, there were 838,359 and 539,289, respectively, unvested common shares outstanding that were issued upon the early exercise of stock options prior to the vesting of the underlying shares which are subject to repurchase by the Company at the original issuance price upon termination of the stockholders' services. The right to repurchase these shares generally lapses with respect to 25% of the shares underlying the option after one year of service to the Company and 1/48 of the shares underlying the original grant per month for 36 months thereafter. The shares purchased by the employees pursuant to the early exercise of stock options are not deemed, for accounting purposes, to be issued until those shares vest. As of December 31, 2016 and 2017, the Company recorded $0.3 million and $0.2 million, respectively, as short- term and long-term liabilities associated with shares issued subject to repurchase rights.

11. Income Taxes

The reconciliation of the statutory federal income tax rate to the Company's effective tax rate is as follows:

	Year Ended December 31,	
	2016	2017
Tax at statutory federal rate	34.00%	34.00%
State tax, net of federal benefit	3.34	2.22
Permanent differences	(0.81)	(2.34)
Change in valuation allowance	(37.32)	(20.70)
Tax reform	—	(17.34)
Research and development tax credits	0.79	4.16
Effective income tax rate	— %	— %

The Company uses the liability method of accounting for income taxes. Under this method, deferred tax assets and liabilities are determined based on the differences between the financial reporting and the tax bases of assets and liabilities and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. The Company assesses the likelihood that the resulting deferred tax assets will be realized. A valuation allowance is provided when it is more likely than not that some portion or all of a deferred tax asset will not be realized.

Gritstone Oncology, Inc.
Notes to Financial Statements

December 31, 2017

In assessing the realizability of deferred tax assets, the Company considers whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which the temporary differences representing net future deductible amounts become deductible. Due to the Company's history of losses, and lack of other positive evidence, the Company has determined that it is more likely than not that its net deferred tax assets will not be realized, and therefore, the net deferred tax assets are fully offset by a valuation allowance at December 31, 2016 and 2017. The deferred tax assets were primarily comprised of federal and state tax net operating losses and tax credit carryforwards. The valuation allowance increased by $7.0 million during 2016 and increased by $8.5 million during 2017.

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. federal statutory corporate 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 $7.1 million to reflect the reduced U.S. tax rate of the Tax Act, which was off-set by a corresponding reduction in the 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 $7.1 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 the provisional amounts recorded. The Company expects to complete its analysis within the measurement period in accordance with SAB 118.

The components of the net deferred tax assets/liabilities are as follows (in thousands):

	December 31,	
	2016	2017
Deferred tax assets:		
Net operating loss carryforwards	$ 6,852	$ 12,251
Research and development tax credits	156	1,990
Lease financing obligation	—	2,490
Accruals and other	1,342	1,124
Amortization	152	1,222
Deferred tax liabilities:		
Other depreciation	(950)	(536)
Leased building depreciation	—	(2,475)
Total deferred tax assets	7,552	16,066
Less valuation allowance	(7,552)	(16,066)
Net deferred tax assets	$ —	$ —

Gritstone Oncology, Inc.
Notes to Financial Statements

December 31, 2017

At December 31, 2017, the Company's federal and state income tax net operating loss carryforwards were approximately $49.9 million and $25.8 million, respectively, which may be subject to limitations as described below. If not utilized, the federal tax loss carryforwards will begin to expire in 2035 and the state tax loss carryforwards will begin to expire in 2035. Under the newly enacted federal income tax law, federal net operating losses incurred in 2018 and in future years may be carried forward indefinitely, but the deductibility of such federal net operating losses is limited. It is uncertain if and to what extent various states will conform to the newly enacted federal income tax law. In addition, the Company has federal and certain California and Massachusetts research and development income tax credit carryforwards of $1.9 million, $1.0 million and $0.4 million, respectively. If not utilized, the federal research and development income tax credit carryforwards will begin to expire in 2035. The California research and development income tax credit carryforwards do not expire and can be carried forward indefinitely. The Massachusetts research and development income tax credit carryforwards will begin to expire in 2030. Due to the net operating loss carryforwards, all years remain open for income tax examination by tax authorities in the United States, various states and foreign tax jurisdictions in which the Company files tax returns.

The net operating loss (NOL) and tax credit carryforwards are subject to review and possible adjustment by the Internal Revenue Service and state tax authorities and may become subject to an annual limitation in the event of certain 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. This could limit the amount of tax attributes that can be utilized annually to offset future taxable income or tax liabilities. Subsequent ownership changes may further affect the limitation in future years. The Company is in the process of completing an analysis through December 31, 2017 under Internal Revenue Service Code (IRC) Sections 382 and 383 to determine if the Company's net operating loss carryforwards and research and development credits are limited due to a change in ownership. The Company does not believe it has experienced an ownership change pursuant to Section 382, and as a result, does not expect to reduce its federal net operating loss or research and development credit carryforwards.

The following table summarizes the activity related to the Company's unrecognized tax benefits (in thousands):

	December 31,	
	2016	2017
Beginning of year—unrecognized tax benefits	$ 7	$ 230
Decrease for tax positions taken during prior periods	—	(47)
Increases for tax positions taken during current period	223	906
End of year—unrecognized tax benefits	$ 230	$ 1,089

The Company does not expect any material changes to the estimated amount of liability associated with its uncertain tax positions within the next 12 months.

The Company files income tax returns in the U.S. federal jurisdiction and various state jurisdictions. The Company is not currently under audit by the Internal Revenue Service or other similar state or local authorities. All tax years of the Company remain open to examination by major taxing jurisdictions to which the Company is subject.

Gritstone Oncology, Inc.
Notes to Financial Statements

December 31, 2017

12. Net Loss and Unaudited Pro Forma Net Loss Per Share

The following table sets forth the computation of the basic and diluted net loss per share (in thousands, except for per share amounts):

	Year Ended December 31,	
	2016	2017
Numerator:		
Net loss	$ (18,750)	$ (41,377)
Denominator:		
Weighted-average common shares outstanding, basic and diluted	1,672,545	1,999,044
Net loss per share, basic and diluted	$ (11.21)	$ (20.70)

Since the Company was in a loss position for all periods presented, basic net loss per share is the same as diluted net loss per share for all periods 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
Series A—First Tranche convertible preferred stock	3,699,259	3,699,259
Series A—Second Tranche convertible preferred stock	5,178,968	5,178,968
Series B convertible preferred stock	—	8,919,302
Options issued and outstanding	509,189	1,351,840
Early exercised common stock subject to future vesting	838,359	539,289
Warrants to purchase common stock	40,257	40,257
Total	10,266,032	19,728,915

Unaudited Pro Forma Net Loss Per Share

The following table sets forth the computation of the Company's unaudited pro forma basic and diluted net loss per share (in thousands, except share and per share amounts):

	Year ended December 31, 2017
Net loss	$ (41,377)
Shares used in computing net loss per share, basic and diluted	1,999,044
Pro forma adjustment to reflect assumed conversion of preferred stock	11,700,894
Shares used to compute pro forma net loss per share, basic and diluted	13,699,938
Pro forma net loss per share, basic and diluted	$ (3.02)

13. Related-Party Transactions

During the year ended December 31, 2016, the Company issued 4,236,261 shares of Series A convertible preferred stock for total proceeds of $29.2 million to certain stockholders, a member of the

Gritstone Oncology, Inc.
Notes to Financial Statements

December 31, 2017

Company's Board of Directors and immediate family members of certain executive officers of the Company, that are in each case considered to be related parties. During the year ended December 31, 2017, the Company issued 2,560,342 additional shares of Series B convertible preferred stock for total proceeds of $27.6 million to these related parties.

14. Defined Contribution Plan

The Company began sponsoring a 401(k) Plan in 2017 that stipulates that eligible employees can elect to contribute to the 401(k) Plan, subject to certain limitations, on a pretax basis. The Company matches up to 50% of the first 4% of each employee's contribution. During the year ended December 31, 2017, expenses recognized for the 401(k) Plan were insignificant.

Gritstone Oncology, Inc.
Condensed Balance Sheets

(In thousands, except share amounts)

	December 31, 2017	June 30, 2018 (Unaudited)	Pro Forma Stockholders' Equity as of June 30, 2018 (Unaudited)
Assets			
Current assets:			
Cash and cash equivalents	$ 39,007	$ 37,541	
Marketable securities	46,946	26,949	
Prepaid expenses and other current assets	2,526	2,392	
Total current assets	88,479	66,882	
Property and equipment, net	27,211	27,533	
Deposits and other long-term assets	1,610	1,536	
Total assets	$ 117,300	$ 95,951	
Liabilities and stockholders' equity			
Current liabilities:			
Accounts payable	$ 3,935	$ 2,671	
Accrued compensation	2,227	1,793	
Accrued liabilities	1,490	721	
Total current liabilities	7,652	5,185	
Deferred rent, net of current portion	1,749	1,543	
Other non-current liabilities	96	43	
Lease financing obligation, net of current portion	10,521	10,508	
Total liabilities	20,018	17,279	
Commitments and contingencies (Note 6)			
Stockholders' equity:			
Convertible preferred stock, $0.0001 par value; 125,362,551 and 139,228,319 shares authorized at December 31, 2017 and June 30, 2018 (unaudited), respectively; 17,797,529 and 18,487,657 shares issued and outstanding at December 31, 2017 and June 30, 2018 (unaudited), respectively; aggregate liquidation preference of $157,268 and $166,268 at December 31, 2017 and June 30, 2018 (unaudited), respectively; no shares issued and outstanding pro forma (unaudited)	156,937	165,865	$ —
Common stock, $0.0001 par value; 160,000,000 and 175,250,000 shares authorized at December 31, 2017 and June 30, 2018 (unaudited), respectively; 2,152,525 and 2,408,611 shares issued and outstanding at December 31, 2017 and June 30, 2018 (unaudited), respectively; 20,896,268 shares issued and outstanding, pro forma (unaudited)	1	2	14
Additional paid-in capital	2,045	3,311	169,164
Accumulated other comprehensive loss	(74)	(31)	(31)
Accumulated deficit	(61,627)	(90,475)	(90,475)
Total stockholders' equity	97,282	78,672	$ 78,672
Total liabilities and stockholders' equity	$ 117,300	$ 95,951	

See accompanying notes to condensed financial statements.

Gritstone Oncology, Inc.
Condensed Statements of Operations and Comprehensive Loss
(Unaudited)

(In thousands, except share and per share amounts)

	Six Months Ended June 30,	
	2017	2018
Operating expenses:		
Research and development	$ 11,855	$ 24,090
General and administrative	2,840	4,852
Total operating expenses	14,695	28,942
Loss from operations	(14,695)	(28,942)
Interest income, net	138	94
Net loss	(14,557)	(28,848)
Other comprehensive loss:		
Unrealized loss on marketable securities, net of tax	(2)	(31)
Comprehensive loss	$ (14,559)	$ (28,879)
Net loss per share, basic and diluted	$ (7.63)	$ (12.62)
Weighted average number of shares used in computing net loss per share, basic and diluted	1,906,725	2,285,906
Pro forma net loss per share, basic and diluted		$ (1.44)
Weighted average number of shares used in computing pro forma net loss per share, basic and diluted		20,091,061

See accompanying notes to condensed financial statements.

Gritstone Oncology, Inc.
Condensed Statements of Cash Flows
(Unaudited)

(In thousands)

	Six Months Ended June 30,	
	2017	2018
Operating activities		
Net loss	$ (14,557)	$ (28,848)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation	846	1,882
Net amortization of premiums and discounts on marketable securities	(46)	(180)
Stock-based compensation	506	1,173
Changes in operating assets and liabilities:		
Prepaid expenses and other current assets	(218)	415
Deposits and other long term assets	172	74
Accounts payable	122	(177)
Accrued compensation	108	(434)
Accrued and other non-current liabilities	144	(765)
Deferred rent	(115)	(206)
Net cash used in operating activities	(13,038)	(27,066)
Investing activities		
Purchase of marketable securities	(16,302)	—
Maturities of marketable securities	26,867	20,220
Purchase of property and equipment	(3,695)	(2,857)
Net cash provided by investing activities	6,870	17,363
Financing activities		
Proceeds from issuance of common stock under equity incentive plan	14	24
Payments of deferred IPO costs	—	(779)
Proceeds from issuance of convertible preferred stock, net of issuance costs	—	8,992
Net cash provided by financing activities	14	8,237
Net decrease in cash, cash equivalents and restricted cash	(6,154)	(1,466)
Cash, cash equivalents and restricted cash at beginning of period	12,410	39,999
Cash, cash equivalents and restricted cash at end of period	$ 6,256	$ 38,533
Supplemental disclosures of non-cash investing and financing information		
Property and equipment purchases accrued but not yet paid	$ 709	$ 247
Assets acquired under leasing obligations	$ 9,300	$ —
Receivable for lessor funded financing	$ 1,226	$ —
Deferred IPO costs included in accrued liabilities and accounts payable	$ —	$ 345

See accompanying notes to condensed financial statements.

Gritstone Oncology, Inc.
Notes to Unaudited Interim Condensed Financial Statements

1. Organization and Description of Business

Gritstone Oncology, Inc. (the Company) is an immune-oncology company developing personalized cancer immunotherapies to fight multiple cancer types. The Company was incorporated in the state of Delaware on August 5, 2015, and is based in Emeryville, California and Cambridge, Massachusetts, with a manufacturing facility in Pleasanton, California. The Company operates in one segment.

2. Summary of Significant Accounting Policies

Basis of Presentation

The Company's financial statements have been prepared in accordance with United States generally accepted accounting principles (U.S. GAAP).

Reverse Stock Split

On September 11, 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-6.9 reverse split ("Reverse Split") of shares of the Company's common and convertible preferred stock to be effected prior to the completion of this offering. 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.

Unaudited Interim Condensed Financial Statements

The interim condensed balance sheet as of June 30, 2018, and the statements of operations and comprehensive loss, and cash flows for the six months ended June 30, 2017 and 2018 are unaudited. The unaudited interim condensed financial statements have been prepared on the same basis as the annual financial statements and reflect, in the opinion of management, all adjustments of a normal and recurring nature that are necessary for the fair presentation of the Company's financial position as of June 30, 2018 and its results of operations and cash flows for the six months ended June 30, 2017 and 2018. The financial data and the other financial information disclosed in these notes to the notes to the condensed financial statements related to the six-month periods are also unaudited. The results of operations for the six months ended June 30, 2018 are not necessarily indicative of the results to be expected for the year ended December 31, 2018 or for any other future annual or interim period. The condensed balance as of December 31, 2017 included herein was derived from the audited financial statements as of that date. Certain information and footnote disclosures normally included in annual financial statements prepared in accordance with GAAP have been condensed or omitted. Therefore, these interim condensed financial statements should be read in conjunction with the Company's audited financial statements included elsewhere in this prospectus.

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 condensed balance sheet information as of June 30, 2018 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 six months ended June 30, 2018 was computed using the weighted-average number of shares of common stock outstanding, including the pro forma effect of the conversion of all outstanding shares of convertible preferred stock into shares of common stock, as if such conversion had occurred at the beginning of the period, or their issuance dates if later. 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 U.S. GAAP requires management to make estimates and judgments that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities as of the date of the financial statements and the reported amounts of expenses during the reporting period. On an ongoing basis, management evaluates its estimates, including those related to preclinical study trial accruals, fair value of assets and liabilities, the fair value of leased buildings and other assumptions associated with lease financing transactions, and the fair value of common stock and stock-based compensation. Management bases its estimates on historical experience and on various other market-specific and relevant assumptions that management believes to be reasonable under the circumstances. Actual results could differ from those estimates.

Going Concern

The Company has incurred significant losses and negative cash flows from operations since its inception and had an accumulated deficit of $90.5 million at June 30, 2018 and does not expect to experience positive cash flows in the foreseeable future.

As of June 30, 2018, the Company had $64.5 million in cash, cash equivalents and marketable securities and working capital of $61.7 million. From July to August 2018, the Company sold 921,475 shares of Series C convertible preferred stock at a price of $13.04 per share for net cash proceeds of $12.0 million. See Note 8 for a discussion of the Series C convertible preferred stock financing. In August 2018, the Company also received a non-refundable upfront fee of $20.0 million as consideration for entering into a collaboration agreement (see Note 11). Management expects to incur additional losses in the future to conduct product research and development and to conduct pre-commercialization activities and recognizes the need to raise additional capital to fully implement its business plan. The Company intends to raise such capital through the sale of convertible stock, additional equity, debt financings or strategic alliances with third parties. However, there can be no assurance that the Company will be successful in acquiring additional funding at levels sufficient to fund its operations or on terms acceptable to the Company. These conditions raise substantial doubt about the Company's ability to continue as a going concern for a period of one year from the date of the issuance of these condensed financial statements. If the Company is unsuccessful in its efforts to raise additional financing, the Company could be required to significantly reduce operating expenses and delay, reduce the scope of or eliminate some of its development programs or its future commercialization efforts, out-license intellectual property rights to its product candidates and sell unsecured assets, or a combination of the above, any of which may have a material adverse effect on the Company's business, results of operations, financial condition and/or it ability to fund its scheduled obligations on a timely basis or at all. The accompanying financial statements have been prepared assuming that the Company will continue as a going concern, which contemplates the realization of assets and the settlement of liabilities and commitments in the normal course of business. The condensed financial statements do not reflect any adjustments relating to the recoverability and classification of assets or the amounts and classification of liabilities that might be necessary if the Company is unable to continue as a going concern.

Gritstone Oncology, Inc.
Notes to Unaudited Interim Condensed Financial Statements

Other Risks and Uncertainties

The Company is subject to a number of risks similar to those of other preclinical-stage immunotherapy companies, including dependence on key individuals; the need to develop commercially viable therapeutics; competition from other companies, many of which are larger and better capitalized; and the need to obtain adequate additional financing to fund the development of its products. The Company currently depends on third-party suppliers for key materials and services used in its research and development manufacturing process, and is subject to certain risks related to the loss of these third-party suppliers or their inability to supply the Company with adequate materials and services.

Fair Value of Financial Instruments

Accounting Standards Codification Topic (ASC) 820, *Fair Value Measurement*, establishes a fair value hierarchy for instruments measured at fair value that distinguishes between assumptions based on market data (observable inputs) and the Company's own assumptions (unobservable inputs). Observable inputs are inputs that market participants would use in pricing the asset or liability based on market data obtained from sources independent of the Company. Unobservable inputs are inputs that reflect the Company's assumptions about the inputs that market participants would use in pricing the asset or liability, and are developed based on the best information available in the circumstances.

ASC 820 identifies fair value as the exchange price, or exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As a basis for considering market participant assumptions in fair value measurements, ASC 820 establishes a three-tier fair value hierarchy that distinguishes between the following:

- Level 1 inputs are quoted prices in active markets that are accessible at the market date for identical assets or liabilities.
- Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly.
- Level 3 inputs are unobservable inputs that reflect the Company's own assumptions about the assumptions market participants would use in pricing the assets or liability. Financial assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement.

To the extent that the valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair value requires more judgment. Accordingly, the degree of judgment exercised by the Company in determining fair value is greatest for instruments categorized in Level 3. A financial instrument's level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value instrument.

The carrying amounts reflected on the balance sheets for cash and cash equivalents, prepaid expenses and other current assets, accounts payable, accrued compensation and accrued liabilities approximate their fair values due to their short-term nature.

Cash, Cash Equivalents, and Restricted Cash

Cash equivalents, which consist primarily of highly liquid investments with maturities of three months or less when purchased, are stated at cost which approximates fair value. These assets include investments in money market funds that invest in U.S. Treasury obligations and certificates of deposit which are stated at fair value.

Gritstone Oncology, Inc.
Notes to Unaudited Interim Condensed Financial Statements

The Company has issued a letter of credit under a lease agreement which has been collateralized by a cash deposit for an equal amount and is recorded within deposits and other long-term assets 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 (in thousands).

	December 31, 2017	June 30, 2018
Cash and cash equivalents	$ 39,007	$37,541
Restricted cash	992	992
Total, cash, cash equivalents and restricted cash	$ 39,999	$38,533

Deferred IPO Costs

Deferred IPO costs of $1.1 million are capitalized and included with prepaid expenses and other current assets on the condensed balance sheet as of June 30, 2018. There were no deferred IPO costs as of December 31, 2017. The deferred IPO costs will be offset against proceeds from the IPO upon the consummation of the IPO. In the event the IPO is terminated, all capitalized deferred IPO costs will be expensed.

Marketable Securities

The Company invests its excess cash in investment grade short-term fixed income securities. Such investments in marketable securities are considered available for sale, and reported at fair value with unrealized gains and losses included as a component of accumulated other comprehensive income (loss). Marketable 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 balances 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 available-for-sale securities are included in interest and other income (expense), net. The cost of securities sold is determined using 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 the Company'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.

Gritstone Oncology, Inc.
Notes to Unaudited Interim Condensed Financial Statements

Property and Equipment, Net

Property and equipment are stated at cost, less accumulated depreciation and amortization. Maintenance and repairs that do not improve or extend the lives of the respective assets are expensed to operations as incurred.

Depreciation is calculated using the straight-line method over the estimated useful lives of the respective assets, which are as follows:

Asset	Estimated Useful Life
Computer equipment and software	3 to 5 years
Furniture and fixtures	5 years
Laboratory equipment	5 to 7 years
Leasehold improvements	Shorter of useful life or lease term

Property and equipment includes a leased building which did not meet the sale-leaseback criteria and was recorded at its fair value plus the cost of improvements made during the constriction period. The building is being depreciated to a residual value over the lease term whereby the book value of the building will not be greater than the remaining lease financing obligation when the lease ends (see Note 6).

Stock-Based Compensation

The Company measures and recognize compensation expense for all stock-based awards made to employees and directors based on the grant date estimated fair value of each award. Such expense is recognized on a straight-line basis over the requisite service period which is generally the vesting period for the entire award. Expense is adjusted for estimated forfeiters. Forfeitures of awards are estimated based on historical forfeiture experience and the experience of other companies in the same industry. The estimate of forfeitures will be adjusted over the service period to the extent that actual forfeitures differ, or are expected to differ, from prior estimates.

The valuation model used for calculating the fair value of awards for stock compensation expense is the Black-Scholes option-pricing model (the Black-Scholes model). The Black-Scholes model requires management to make assumptions and judgments about the variables used in the calculation, including the expected term (weighted average period of time that the options granted are expected to be outstanding), the expected volatility of common stock, an assumed risk-free interest rate, and expected dividends the Company may pay. Management uses the simplified calculation of the expected term. Volatility is based on an average of the historical volatilities of the common stock of entities with characteristics similar to the Company's. The risk-free rate is based on the U.S. Treasury yield curve in effect at the time of grant for periods corresponding with the expected life of the option. The Company uses an assumed dividend yield of zero as the Company has never paid dividends and has no current plans to pay any dividends on its common stock.

Management recognizes stock-based compensation expense for stock options granted to non-employees based on the estimated fair value of the award on the measurement dates using the Black-Scholes model. The estimated fair value of options granted to non-employees is re-measured at each reporting period using the Black-Scholes model until the awards vest and the resulting change in value, if any, is recognized in the statement of operations and comprehensive loss.

Gritstone Oncology, Inc.
Notes to Unaudited Interim Condensed Financial Statements

Research and Development Expenses

All research and development costs, including work performed by third parties, are expensed as incurred. Research and development costs consist of salaries and other personnel-related expenses, including associated stock-based compensation, consulting fees, laboratory supplies, and facility costs, as well as fees paid to other entities that conduct certain research and development activities on behalf of the Company. Costs to develop the Company's technologies are recorded as research and development expense unless certain costs which meet the criteria to be capitalized as internal-use software costs is met. Payments made prior to the receipt of goods or services to be used in research and development are capitalized until the goods are received or services are rendered.

The Company has and may continue to enter into license agreements to access and utilize certain technology. In each case, the Company evaluates of 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 acquisitions of businesses. For asset acquisitions, the upfront payments to acquire such licenses, as well as any future milestone payments, are immediately recognized as research and development expense when paid, provided that 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 payments to be made for future milestone events. The Company assess whether such contingent consideration meets the definition of a derivative and to date the Company has determined that such contingent consideration are not derivatives.

Pre-clinical costs are a component of research and development expenses. The Company accrues and expenses pre-clinical trial activities performed by third parties based upon actual work completed in accordance with agreements established with its service providers. The Company determines the actual costs through discussions with internal personnel and external service providers as to the progress or stage of completion of services and the agreed-upon fee to be paid for such services.

Leases and Deferred Rent and Lease Financing Obligation

The Company rents its office space and facilities under non-cancelable operating lease agreements and recognizes related rent expense on a straight-line basis over the term of the lease. The Company's lease agreements contain rent holidays, scheduled rent increases, and renewal options. Rent holidays and scheduled rent increases are included in the determination of rent expense to be recorded ratably over the lease term. 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. The Company 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 recognition of rent expense on a straight-line basis for the buildings the Company occupies.

Funding of leasehold improvements by the Company's landlord is accounted for as a tenant improvement allowance and recorded as current and non-current deferred rent liabilities and amortized on a straight-line basis as a reduction of rent expense over the term of the lease.

In certain arrangements, the Company is involved in the construction of improvements to buildings it is leasing. To the extent the Company is involved with the structural improvements of the construction project or takes construction risk, the Company is considered to be the owner of the building and related improvements for accounting purposes during the construction period. The

Gritstone Oncology, Inc.
Notes to Unaudited Interim Condensed Financial Statements

Company records the fair value of the building and related improvements subject to the lease within property and equipment on the balance sheet. The Company also records a corresponding lease financing obligation on its balance sheet representing the amounts financed by the lessor for the building and lessor financed improvements. Once a construction project is complete, the Company considers the requirements for sale-leaseback accounting treatment. If the Company concludes the arrangement does not qualify for sale-leaseback accounting treatment, the building and improvements remain on the Company's balance sheet and are subject to depreciation and assessing for impairment.

For such arrangements, at both pre and post the construction period, the Company bifurcates its lease payments into a portion allocated to the building and a portion allocated to the parcel of land on which the building has been built. The portion of the lease payments allocated to the land is treated for accounting purposes as operating lease payments, and therefore is recorded as rent expense in the statements of operations and comprehensive loss. The portion of the lease payments allocated to the building is further bifurcated into a portion allocated to interest expense and a portion allocated to reduce the lease financing obligation. The interest rate used for the lease financing obligation represents the Company's estimated incremental borrowing rate at the inception of the lease, adjusted to reduce any built in loss.

Comprehensive Loss

Comprehensive loss includes net loss and certain changes in stockholders' equity that are excluded from net loss, primarily unrealized losses on the Company's marketable securities.

Net Loss per Share

Basic net loss per share is calculated by dividing the net loss be the weighted-average number of shares of common stock outstanding during the period, without consideration for common stock equivalents. Diluted net loss per share is the same as basic net loss per share, since the effects of potentially dilutive securities are antidilutive given the net loss for each period presented.

Recent Accounting Pronouncements

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)*. ASU 2016-02 amends a number of aspects of lease accounting, including requiring lessees to recognize almost all leases with a term greater than one year as a right-of-use asset and corresponding liability, measured at the present value of the lease payments. Subsequent measurement, including the presentation of expenses and cash flows, will depend on the classification of the lease as either a finance or an operating lease. Initial costs directly attributable to negotiating and arranging the lease will be included in the asset. For public entities, this standard is effective for annual reporting periods beginning after December 31, 2018, including interim periods within that reporting period. Originally, entities were required to adopt ASU 2016-02 using a modified retrospective approach, which required prior periods to be presented under this new standard with various practical expedients allowed. In July 2018, the Financial Accounting Standards Board ("FASB") issued ASU 2018-11, Leases (Topic 842): Targeted Improvements, which now allows entities the option of recognizing the cumulative effect of applying the new standard as an adjustment to the opening balance of retained earnings in the year of adoption (January 1, 2019) while continuing to present all prior periods under previous lease accounting guidance. While the Company is currently evaluating the impact of the adoption of this standard on its financial statements and related disclosures, the Company anticipates recognition of additional assets and corresponding liabilities related to leases on its balance sheets, expanded footnote disclosures and potential changes to how the Company has accounted for its Pleasanton Lease.

Gritstone Oncology, Inc.
Notes to Unaudited Interim Condensed Financial Statements

In January 2017, the FASB issued ASU 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 Company adopted ASU 2017-01 effective January 1, 2018. The adoption of this accounting standards update did not have a material impact on the Company's condensed financial statements.

ASU 2018-07, Compensation—Stock Compensation (Topic 718) is intended to reduce cost and complexity and to improve financial reporting for share-based payments issued to non-employees (for example, service providers, external legal counsel, suppliers, etc.). The ASU expands the scope of Topic 718, Compensation—Stock Compensation, which currently only includes share-based payments issued to employees, to also include share-based payments issued to non-employees for goods and services. Consequently, the accounting for share-based payments to non-employees and employees will be substantially aligned. ASU 2018-07 is effective for annual and interim periods beginning after December 15, 2018. Early adoption of the standard is permitted. The standard will be applied in a retrospective approach for each period presented. The Company is currently evaluating the timing and impact of adopting this accounting standard update on its condensed financial statements and related disclosures.

On December 22, 2017, the U.S. federal government enacted the Tax Cuts and Jobs Act ("the Act"). The Tax Act contains, among other things, significant changes to corporate taxation, including reduction of the corporate tax rate from a top marginal rate of 35% to a flat rate of 21% for tax years beginning after December 31, 2017, limitation of the deduction for net operating losses to 80% of current year taxable income and elimination of net operating loss carrybacks, implementing a territorial tax system, and requiring a mandatory one-time tax on U.S. owned undistributed foreign earnings and profits known as the transition tax. In December 2017, SEC staff issued Staff Accounting Bulletin No. 118, Income Tax Accounting Implications of the Tax Cuts and Jobs Act ("SAB 118") to address the accounting implications of recently enacted U.S. federal tax reform. SAB 118 allows companies to record provisional amounts during a measurement period not to extend beyond one year of the enactment date to address ongoing guidance and tax interpretations that are expected over the next 12 months. The Company has adopted SAB 118 and currently considers its accounting of the impact of U.S. federal tax reform to be incomplete but continues to make a reasonable estimate of the effects on our existing deferred tax assets. The Company expects to complete the remainder of the analysis within the measurement period in accordance with SAB 118. Adjustments, if any, are not expected to impact the statement of operations and comprehensive loss due to the full valuation allowance on the Company's deferred tax assets.

Gritstone Oncology, Inc.
Notes to Unaudited Interim Condensed Financial Statements

3. Cash Equivalents and Marketable Securities

The amortized cost, unrealized gains and losses and fair values of cash equivalents and marketable securities were as follows (in thousands):

	December 31, 2017			
Description	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value
Money market funds	$ 27,711	$ —	$ —	$27,711
Commercial paper	32,257	—	(48)	32,209
Corporate debt securities	19,930	—	(26)	19,904
	$ 79,898	$ —	$ (74)	$79,824
Classified as:				
Cash equivalents				$32,878
Marketable securities				46,946
				$79,824

	June 30, 2018,			
Description	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value
Money market funds	$ 21,535	$ —	$ —	$21,535
Commercial paper	18,468	—	(11)	18,457
Corporate debt securities	8,512	—	(20)	8,492
	$ 48,515	$ —	$ (31)	$48,484
Classified as:				
Cash equivalents				$21,535
Marketable securities				26,949
				$48,484

As of December 31, 2017 and June 30, 2018, the Company had a total of $86.0 million and $64.5 million in cash, cash equivalents and short-term marketable securities, which includes $39.0 million and $37.6 million in cash and cash equivalents and $46.9 million and $26.9 million in short-term marketable securities, respectively.

All marketable securities held as of June 30, 2018, had contractual maturities of less than one year. There have been no realized gains or losses on marketable securities for the periods presented. None of the Company's investments in marketable securities has been in an unrealized loss position for more than one year. The Company determined that it did have the ability and intent to hold all marketable securities that have been in a continuous loss position until maturity or recovery, thus there has been no recognition of any other-than-temporary impairment in the six months ended June 30, 2018.

Gritstone Oncology, Inc.
Notes to Unaudited Interim Condensed Financial Statements

4. Fair Value Measurements

The Company's financial assets and liabilities subject to fair value measurements on a recurring basis and the level of inputs used in such measurements were as follows (in thousands):

	December 31, 2017			
Description	Total	Level 1	Level 2	Level 3
Money market funds	$27,711	$27,711	$ —	$ —
Commercial paper	32,209	—	32,209	—
Corporate debt securities	19,904	—	19,904	—
	$79,824	$27,711	$52,113	$ —

	June 30, 2018			
Description	Total	Level 1	Level 2	Level 3
Money market funds	$21,535	$21,535	$ —	$ —
Commercial paper	18,457	—	18,457	—
Corporate debt securities	8,492	—	8,492	—
	$48,484	$21,535	$26,949	$ —

The Company measures the fair value of money market funds based on quoted prices in active markets for identical securities. Commercial paper and corporate debt securities are valued 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 between Level 1 and Level 2 during the periods presented.

5. Property and Equipment, Net

Property and equipment and related accumulated depreciation and amortization are as follows (in thousands):

	December 31, 2017	June 30, 2018
Computer equipment and software	$ 353	$ 403
Furniture and fixtures	785	809
Laboratory equipment	10,515	12,605
Leasehold improvements	2,977	3,017
Buildings and improvements capitalized under lease financing transaction	15,371	15,371
	30,001	32,205
Less accumulated depreciation and amortization	(2,790)	(4,672)
	$ 27,211	$27,533

Depreciation and amortization expense was $0.9 million for the six month period ended June 30, 2017, and $1.9 million for the six month period ended June 30, 2018.

Gritstone Oncology, Inc.
Notes to Unaudited Interim Condensed Financial Statements

6. Commitments and Contingencies

Leases

In November 2015, the Company entered into an 84-month non-cancelable operating lease, effective March 2016, for a new facility in Emeryville, California, with laboratory and office space. In conjunction with signing the lease, the Company paid a cash security deposit of $0.05 million. The lease agreement includes an escalation clause for increased rent and a renewal provision allowing the Company to extend this lease for an additional three years at the prevailing rental rate.

In February 2016, the Company entered into a 67-month non-cancellable operating lease effective October 2016 for a new facility in Cambridge, Massachusetts, with laboratory and office space. In conjunction with signing the lease, the Company paid a cash security deposit of $0.3 million. The lease agreement includes an escalation clause for increased rent and a renewal provision allowing the Company to extend this lease for an additional three years at the prevailing rental rate. The lessor provided the Company a tenant improvement allowance for a total of $2.1 million to complete the laboratory and office renovation. The Company recorded the tenant allowance received as leasehold improvements under the property and equipment account and deferred rent liability on the accompanying condensed balance sheets.

In March 2017, the Company entered into a noncancelable operating lease (the Pleasanton Lease) to lease 42,620 square feet of office, cleanroom, and laboratory support manufacturing space in Pleasanton, California (the Pleasanton Facility). Subsequently, in April 2017, the Company took possession of the space. The Pleasanton Lease includes a free rent period, escalating rent payments and a term that expires on November 30, 2024. The Company has the option to extend the lease term for a period of five years at the then market rental rate. The Company's obligation to pay rent commenced on December 1, 2017. The Company obtained an irrevocable letter of credit in March 2017 in the initial amount of $1.0 million as a security deposit to the Pleasanton Lease, which may be drawn down by the landlord in the event the Company fails to fully and faithfully perform all of its obligations. The letter of credit may be reduced based on certain levels of cash and cash equivalents the Company holds. The Pleasanton Lease further provides that the Company is obligated to pay to the landlord its proportionate share of certain basic operating costs, including taxes and operating expenses.

In connection with the Pleasanton Lease, the Company received a tenant improvement allowance of $1.2 million from the landlord for the costs associated with the design, development and construction of tenant improvements for the Pleasanton Facility. The scope of the tenant improvements did not qualify under the lease accounting guidance as "normal tenant improvements" and the Company was deemed owner of the leased building during the construction period for accounting purposes. The Company has therefore capitalized the $9.3 million fair value of the leased building within property and equipment, net, and recognized a corresponding non-current lease financing obligation in the condensed balance sheet as of December 31, 2017 and June 30, 2018. The fair value of the leased building was estimated using a market approach that utilized comparable observable sales for similar assets (Level 2 inputs). The Company has also recognized building improvements totaling $6.1 million for additions to the leased building incurred by the Company during the construction period, of which $1.2 million were due but had not yet been received from the landlord as of December 31, 2017 and were recorded as an increase to the lease financing obligation and prepaid and other current assets on the condensed balance sheet. Such amount were subsequently reimbursed by the landlord in April 2018. In November 2017, construction on the Pleasanton Facility was substantially completed and the leased property was placed into service. The Company determined the completed construction project

did not qualify for sale-leaseback accounting due to the collateral held by the landlord in the form of a letter of credit and instead has been accounted for as a financing lease transaction. The leased building for the Pleasanton Facility and related improvements remain on the Company's balance sheet as of December 31, 2017 and rental payments associated with the Pleasanton Lease have been allocated to operating lease expense for the ground underlying the leased building and principal and interest payments on the lease financing obligation.

For the six months ended June 30, 2017 and June 30, 2018, the Company recorded rent expense associated with the ground lease of approximately $26,100 and $52,200 in the statements of operations and comprehensive loss, respectively. Total interest, which represents the cost of the lease financing obligation under the Pleasanton Lease agreement, was approximately $0.4 million for the six months ended June 30, 2018, which was recognized within the statement of operations and comprehensive loss. No interest expense was recognized for financing obligation while the leased building was being constructed during the six months ended June 30, 2017. The allocation of the Pleasanton Lease payment to ground lease rent expense and principal and interest expense on the lease financing obligation was estimated using income and market approached that utilized comparable observable sales for similar assets, land capitalization rates and an estimate of the Company's incremental borrowing rate (Level 2 and Level 3 inputs).

As of June 30, 2018, minimum annual rental payments under the Company's non-cancelable operating lease agreements and lease financing obligation are as follows (in thousands):

	Lease Financing Obligation	Operating Leases
2018 (remaining six months)	$ 325	$ 823
2019	794	1,700
2020	818	1,751
2021	843	1,803
2022	868	1,118
Thereafter	1,736	396
Total minimum payments	5,384	$ 7,591
Less: Amount representing interest expense	(4,754)	
	630	
Residual value of lease financing obligation	9,896	
	10,526	
Less: Lease financing obligation, short-term	(18)	
Lease financing obligation, long-term	$ 10,508	

Rent expense was $0.6 million and $0.6 million for the six month periods ended June 30, 2017 and 2018, respectively.

Agreement with CRO

In September 2017, the Company entered into a contract research and development agreement with a third party contract research organization (CRO) to provide research, analysis and antibody samples to further the Company's development of personalized immunotherapies in the treatment of

cancer. Under the agreement, the Company paid an upfront payment of $0.5 million to the CRO. The upfront payment has been capitalized and will be recognized as research and development expense using the straight-line method over the term of the agreement, which is one year. The Company is also obligated to pay up to $0.4 million to the CRO upon the completion of certain phases of the research services. These costs will be recorded to research and development expense over the expected period of each phase of the research services. The Company is also obligated to pay the CRO certain milestone payments of up to $36.4 million on achievement of specified events. None of these events had occurred as of June 30, 2018. During the six months ended June 30, 2018, the Company recognized a total of $0.6 million of research and development expense under the agreement.

7. License Agreements

Arbutus Biopharma Corporation

In October 2017, the Company entered into an Exclusive License Agreement by and between Arbutus Biopharma Corporation (Arbutus) and Protiva Biotherapeutics Inc. a wholly owned subsidiary of Arbutus. Certain terms of the agreement were modified by amendment in July 2018. Under the license agreement, the Company has an exclusive license to utilize certain Arbutus intellectual property including patents and know-how relating to immunotherapy. Under this license agreement, the Company paid an upfront payment of $5.0 million which was included in research and development expenses during 2017. The Company also reimbursed Arbutus for materials and personnel costs totaling $0.2 million, which were included in research and development expenses during 2017. During the six months ended June 30, 2018, the Company reimbursed Arbutus for materials and personnel costs totaling $0.3 million. The Company is obligated to pay Arbutus certain milestone payments up to $123.5 million on achievement of specified events, and royalties of not more than 3.5% on sales of its licensed products. None of these events had occurred as of June 30, 2018 and no royalties were due from the sale of licensed products.

Non-Profit Hospital Cancer Center

In January 2016, the Company entered into an Exclusive License Agreement with a non-profit hospital cancer center. Under the license agreement, the Company has an exclusive license to utilize certain patents and know-how relating to immunotherapy for an insignificant upfront payment, cash milestone payments on achievement of specified events, and a low single digit royalty on sales of licensed products. The achievement of the milestones and payment of royalties is dependent upon obtaining regulatory approval. None of the events had occurred as of June 30, 2018 and no royalties were due from the sales of licensed products. The Company also issued a ten-year warrant to the cancer center for the right to purchase 40,257 shares of its common stock at $0.35 per share. The estimated fair value of the warrant was not significant and was included in research and development expense and additional paid-in-capital. The Warrant was exercised in full in January 2018.

8. Convertible Preferred Stock

Series A Equity Financing

The Company entered into a Series A preferred stock purchase agreement with certain investors on September 18, 2015, and upon approval by the Company's Board of Directors, the Company completed a Series A convertible preferred stock financing (Series A—First Tranche) at a price per share of $6.90. The net cash proceeds from this round of financing totaled $25.4 million, and 3,699,259 shares of Series A convertible preferred stock were issued. Issuance costs totaled $0.1 million and were recorded as a reduction of the proceeds.

Gritstone Oncology, Inc.
Notes to Unaudited Interim Condensed Financial Statements

On April 1, 2016, and upon approval by the Company's Board of Directors, the Company completed a Series A convertible preferred stock financing (Series A—Second Tranche) at a price per share of $6.90. The net cash proceeds from this round of financing totaled $35.7 million, and 5,178,968 shares of Series A convertible preferred stock were issued. Issuance costs totaled $0.02 million and were recorded as a reduction of the proceeds.

Upon approval by the Company's Board of Directors and a majority of the holders of the Series A convertible preferred stock, the Company could proceed with the third closing of the Series A convertible preferred stock for a total of 5,918,840 shares at a purchase price of $6.90 per share (Series A—Third Tranche). However, for a period of 90 days following such approval, the Company may solicit alternative financing at financially superior terms to those of the Series A—Third Tranche, including a purchase price greater than $6.90 per share (the Superior Financing Transaction). If approved by the Board of Directors, the Company's obligation to complete the Series A—Third Tranche shall terminate, and the Superior Financing Transaction would proceed. Each Series A convertible preferred stockholder will have the right to purchase at least 50% of its original Series A—Third Tranche amount in the Superior Financing Transaction. The Series A—Second Tranche and Series A—Third Tranche rights are considered to be mutual options as neither the purchasers nor the Company have a commitment or obligation to purchase or sell additional shares. As such, these rights are not accounted for separately. In connection with the Company's Series B Equity Financing the Company's Board of Directors and investors terminated the ability to complete the Series A—Third Tranche.

Series B Equity Financing

The Company entered into a Series B preferred stock purchase agreement with certain investors on September 6, 2017 and October 20, 2017, and upon approval by the Company's Board of Directors, the Company completed a Series B convertible preferred stock financing (Series B) at a price per share of $10.76. The net cash proceeds totaled $95.8 million and 8,919,302 shares of Series B convertible preferred stock were issued. Issuance costs totaled $0.2 million and were recorded as a reduction of the proceeds.

Series C Equity Financing

The Company entered into a Series C preferred stock purchase agreement with certain investors on June 29, 2018, and upon approval by the Company's Board of Directors, the Company completed a Series C convertible preferred stock financing (Series C) at a price per share of $13.04. The net cash proceeds totaled $8.9 million and 690,128 shares of Series C convertible preferred stock were issued. Issuance costs totaled $0.1 million and were recorded as a reduction of the proceeds. In July 2018, the Company sold an additional 153,360 shares of Series C convertible preferred stock at a price of $13.04 per share for net cash proceeds of $2.0 million.

The preferred stock has various features, including convertibility and non-cumulative dividends. The Company determined that none of the features required bifurcation from the underlying shares, either because they are clearly and closely related to the underlying shares or because they do not meet the definition of a derivative. The Series A, Series B and Series C convertible preferred stock are considered permanent equity and have not been accreted up to their redemption value. The Second and Third Tranche rights are considered to be mutual options as neither the purchasers nor the Company have a commitment or obligation to purchase or sell additional shares. As such, these rights are not accounted for separately. Moreover, in any such redemption (i.e. deemed liquidation) all equity

Gritstone Oncology, Inc.
Notes to Unaudited Interim Condensed Financial Statements

holders (common and preferred) will receive the same form of consideration. The preferred stockholders cannot contractually redeem their shares, or redeem their shares through separate negotiation, without the Company's common stockholders being able to also redeem their shares for the same form of consideration.

Convertible preferred stock consisted of the following (in thousands, except share and per share amounts):

	December 31, 2017				
	Shares Authorized	Shares Issued and Outstanding	Issuance Price Per Share	Carrying Value	Liquidation Preference
Series B	64,102,551	8,919,302	$ 10.76	$ 95,798	$ 96,008
Series A—First Tranche	61,260,000	3,699,259	$ 6.90	25,425	25,525
Series A—Second Tranche	—	5,178,968	$ 6.90	35,714	35,735
	125,362,551	17,797,529		$ 156,937	$ 157,268

	June 30, 2018				
	Shares Authorized	Shares Issued and Outstanding	Issuance Price Per Share	Carrying Value	Liquidation Preference
Series C	16,425,000	690,128	$ 13.04	$ 8,928	$ 9,000
Series B	61,543,319	8,919,302	$ 10.76	95,798	96,008
Series A—First Tranche	61,260,000	3,699,259	$ 6.90	25,425	25,525
Series A—Second Tranche	—	5,178,968	$ 6.90	35,714	35,735
	139,228,319	18,487,657		$ 165,865	$ 166,268

The rights, preferences, and privileges of the convertible preferred stock are as follows:

Redemption Rights

The preferred stock is not redeemable by holders unless a redemption event occurs. A redemption event will only occur upon the liquidation or winding up of the Company, a greater than 50% change in control, or the sale of substantially all of the assets of the Company. Management has also elected not to adjust the carrying values of the Series A, Series B and Series C convertible preferred stock to the redemption value of such shares, since it is uncertain whether or when a redemption event will occur. Subsequent adjustments to increase the carrying value to the redemption values will be made when it becomes probable that such a redemption will occur.

Dividends Rights

The holders of Series A, Series B and Series C convertible preferred stock are entitled to receive dividends, from any assets legally available, prior and in preference to any declaration or payment of any dividend to the common stockholders, at the rate of 8% of the original issue price (as determined on a per annum basis and on an as-converted basis). Such dividends are payable if and when declared by the Board of Directors and are not cumulative. After payment of such dividends, any additional dividends shall be distributed among the holders of the Series A, Series B and Series C convertible preferred stock and common stock pro rata based on the number of shares of common stock then held by each holder (assuming conversion of all such preferred stock into common stock). As of December 31, 2017 and June 30, 2018, no such dividends had been declared or accrued.

Gritstone Oncology, Inc.
Notes to Unaudited Interim Condensed Financial Statements

Liquidation Rights

In the event of any liquidation, dissolution, or winding up of the Company, whether voluntary or involuntary (Liquidation Event), the holders of Series C convertible preferred stock are entitled to receive, prior and in preference to any distribution of any of the assets of the Company to the holders of the Series A and B convertible preferred stock, $13.04 per share (as adjusted for any stock splits, combinations, reorganizations, or similar transactions, plus any declared and unpaid dividends). The holders of Series B convertible preferred stock are entitled to receive, prior and in preference to any distribution of any of the assets of the Company to the holders of the Series A convertible preferred stock, $10.76 per share (as adjusted for any stock splits, combinations, reorganizations, or similar transactions, plus any declared and unpaid dividends). After payment of the above, the holders of Series A convertible preferred stock are entitled to receive, prior and in preference to any distribution of any of the assets of the Company to the holders of common stock, $6.90 per share (as adjusted for any stock splits, combinations, reorganizations, or similar transactions, plus any declared and unpaid dividends).

If, upon the occurrence of such an event, the proceeds to be distributed are insufficient to permit the payment to such holders of the full preferential amounts, then the entire amount legally available for distribution shall be distributed among the holders of the Series A, Series B and Series C preferred stock in proportion to the full preferential amount that each such holder is otherwise entitled to receive had such proceeds been available.

After liquidation preference payments have been made to the holders of the convertible preferred stock as described above, all of the remaining assets and funds of the Company are to be distributed ratably among the holders of the preferred and common stock, as if the preferred stock had been converted to common stock. However, Series C preferred stock holders are limited to the greater of (1) $65.21 per share (as adjusted for any stock splits, combinations, reorganizations or similar transactions) and (2) the amount the holder would have received if all shares of Series C convertible preferred stock had been converted to common stock prior to such liquidation, dissolution, or winding up of the Company. Series B preferred stockholders are limited to the greater of (1) $53.82 per share (as adjusted for any stock splits, combinations, reorganizations or similar transactions) and (2) the amount the holder would have received if all shares of Series B convertible preferred stock had been converted to common stock prior to such liquidation, dissolution, or winding up of the Company. Series A preferred stockholders are limited to the greater of (1) $34.50 per share (as adjusted for any stock splits, combinations, reorganizations or similar transactions) and (2) the amount the holder would have received if all shares of Series A convertible preferred stock had been converted to common stock prior to such liquidation, dissolution, or winding up of the Company.

Voting Rights

Except as otherwise required by law, the holders of common and Series A, Series B and Series C convertible preferred stock vote together as a single class. The holders of the convertible preferred stock are entitled to the number of votes equal to the number of shares of common stock into which the convertible preferred stock could be converted on the record date for the vote, or upon the written consent of the stockholders.

The holders of the Series A convertible preferred stock are entitled to elect three directors of the Company, the holders of the Series B convertible preferred stock are entitled to elect one director of the Company, and the holders of common stock shall be entitled to elect one director of the Company.

Gritstone Oncology, Inc.
Notes to Unaudited Interim Condensed Financial Statements

Conversion Rights

Each share of Series A, Series B and Series C convertible preferred stock, at the option of the holder and at any time after the date of issuance, is convertible into the number of shares of common stock determined by dividing the respective original issue price by the conversion price (the Conversion Price). At June 30, 2018, the Series A, Series B and Series C Conversion Prices are $6.90, $10.76 and $13.04, respectively, and are subject to certain future adjustments.

Conversion occurs at the conversion rate (i) upon the closing of the sale of common stock at a price of at least $15.66 per share, in a firm commitment underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, resulting in at least $50.0 million of net proceeds, or (ii) at the election of the holders of at least a majority of the then outstanding shares of convertible preferred stock, voting together as a single class and on an as-converted to common stock basis. Through June 30, 2018, the Company has sufficient authorized and unissued common shares available to settle any conversion event. As part of the Company's Series C convertible preferred stock financing, the Company's certificate of incorporation was amended to reduce the initial public offering automatic conversion price for the Series A and B convertible preferred stock from $21.53 to $15.66 per share. The Company accounted for this as a modification of an instrument akin to equity that resulted in no incremental fair value being attributed to the Series A and Series B convertible preferred stock.

9. Stock-Based Compensation

2015 Equity Incentive Plan

In February 2018, the Company's board approved a 507,246 share increase in the number of shares to be reserved under the Company's 2015 Equity Incentive Plan.

Stock Option Activity

A summary of the stock plan activity is as follows:

	Options Available for Grant	Outstanding Options	Weighted Average Exercise Price
Balances at December 31, 2017	626,229	1,351,840	$ 0.89
Reserved	507,246	—	—
Granted	(454,161)	454,161	3.17
Exercised	—	(38,919)	0.50
Forfeited	99,408	(99,408)	1.31
Repurchased	30,117	—	0.35
Balances at June 30, 2018	808,839	1,667,674	1.50

For the six months ended June 30, 2017 and 2018, the total intrinsic value of stock option awards exercised was $0.07 million and $0.26 million, respectively, determined at the date of option exercise, and the total cash received upon exercise of stock options was not significant for either period. The total intrinsic value of options exercisable was $3.2 million as of June 30, 2018. The aggregate intrinsic value was calculated as the difference between the exercise prices of the underlying stock option awards and the estimated fair value of the common stock on the date of exercise.

Gritstone Oncology, Inc.
Notes to Unaudited Interim Condensed Financial Statements

Valuation of Stock Options

The fair value of each stock option granted to an employee or a director was estimated as of the date of grant using the Black-Scholes model with the following weighted average assumptions:

	Six Months Ended June 30,	
	2017	2018
Dividend yield	—	—
Expected term	6.05 years	6.07 years
Risk-free interest rate	1.94%	2.65%
Expected volatility	94%	89%

The grant date fair value of the Company's common stock used in Black-Scholes model 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).

Additional information related to the status of options at June 30, 2018, is as follows:

	Options	Weighted Average Exercise Price per Share	Weighted Average Remaining Contractual Life (Years)	Aggregate Intrinsic Value (in thousands)
Outstanding	1,667,674	$ 1.50	8.89	$ 11,429
Exercisable	406,711	0.59	8.44	3,156
Vested and expected to vest	1,902,429	1.28	8.66	13,449

At June 30, 2018, $3.1 million of total unrecognized compensation cost related to non-vested employee and consultant options is expected to be recognized over a weighted-average period of 2.62. The total fair value of shares vested during the period ended June 30, 2018 was $0.94 million.

Stock-based compensation expense and awards granted to non-employees was not material for either the six months ended June 30, 2017 or 2018.

Stock-Based Compensation Expense

Total stock-based compensation for all awards granted to employees and consultants, before taxes is as follows (in thousands):

	Six Months Ended June 30,	
	2017	2018
Research and development expenses	$ 395	$ 595
General and administrative expenses	111	578
	$ 506	$ 1,173

Gritstone Oncology, Inc.
Notes to Unaudited Interim Condensed Financial Statements

Liability for Early Exercise of Stock Options

As of December 31, 2017 and June 30, 2018, there were 539,289 and 336,608, respectively, of unvested common shares outstanding that were issued upon the early exercise of stock options prior to the vesting of the underlying shares which were subject to repurchase by the Company at the original issuance price upon termination of the stockholders' services. The right to repurchase these shares generally lapses with respect to 25% of the shares underlying the option after one year of service to the Company and 1/48 of the shares underlying the original grant per month for 36 months thereafter. The shares purchased by the employees pursuant to the early exercise of stock options are not deemed, for accounting purposes, to be issued until those shares vest. As of December 31, 2017 and June 30, 2018, the Company recorded $0.2 million and $0.1 million, respectively, as short- term and long-term liabilities associated with shares issued subject to repurchase rights.

10. Net Loss and Pro Forma Net Loss Per Share

The following table sets forth the computation of the basic and diluted net loss per share (in thousands, except for per share amounts):

	Six Months Ended June 30,	
	2017	2018
Numerator:		
Net loss	$ (14,557)	$ (28,848)
Denominator:		
Weighted average common shares outstanding, basic and diluted	1,906,725	2,285,906
Net loss per share, basic and diluted	$ (7.63)	$ (12.62)

Since the Company was in a loss position for all periods presented, basic net loss per share is the same as diluted net loss per share for all periods 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:

	June 30,	
	2017	2018
Series A-1 convertible preferred stock	3,699,259	3,699,259
Series A-2 convertible preferred stock	5,178,968	5,178,968
Series B convertible preferred stock	—	8,919,302
Series C convertible preferred stock	—	690,128
Options issued and outstanding	1,193,657	1,667,674
Early exercised common stock subject to future vesting	669,220	336,608
Warrants to purchase common stock	40,257	—
Total	10,781,361	20,491,939

Gritstone Oncology, Inc.
Notes to Unaudited Interim Condensed Financial Statements

Pro Forma Net Loss Per Share

The following table sets forth the computation of the Company's pro forma basic and diluted net loss per share (in thousands, except for per share amounts):

	Six Months Ended June 30, 2018
Net loss	$ (28,848)
Shares used in computing net loss per share, basic and diluted	2,285,906
Pro forma adjustment to reflect assumed conversion of preferred stock	17,805,155
Shares used to compute pro forma net loss per share, basic and diluted	20,091,061
Pro forma net loss per share, basic and diluted	$ (1.44)

11. Subsequent Events

Research Collaboration and License Agreement

In August 2018, the Company entered into a Research Collaboration and License Agreement (License Agreement) with bluebird bio, Inc. (bluebird). Under the terms of the License Agreement, bluebird paid the Company a non-refundable upfront fee of $20.0 million. Bluebird is also obligated to pay the Company additional consideration upon the achievement of specified development, regulatory and commercialization events, and single-digit royalties on sales of products that utilize the technology subject to the License Agreement.

As part of the License Agreement, the Company also sold bluebird 768,115 shares of Series C convertible preferred stock at a price of $13.04 per share for gross proceeds of $10.0 million.

Stock Option Grants

In August 2018, the Company granted 715,922 stock options with an exercise price of $9.59 per share to executives and other employees of the Company. These options vest over a four year period.

Milestone Payment

Following the acceptance of our investigational new drug application for GRANITE-001 by the U.S. Food and Drug Administration, the Company made a $2.5 million development milestone payment to Arbutus in September 2018 that was recorded as research and development expense.

Lease Agreement

In September 2018, the Company entered into a 24-month non-cancellable operating lease, effective September 2018, for an additional facility in Cambridge, Massachusetts with laboratory and office space. Total non-cancellable payments under this lease aggregate $2.9 million through 2020.

6,071,428 Shares

Gritstone Oncology, Inc.

Common Stock

Goldman Sachs & Co. LLC **Cowen** **Barclays**

BTIG

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 FINRA filing fee and the Nasdaq Global Market listing fee.

Item	Amount paid or to be paid
SEC registration fee	$ 13,040
FINRA filing fee	16,210
The Nasdaq Global Market Listing fee	125,000
Printing and engraving expenses	500,000
Legal fees and expenses	1,400,000
Accounting fees and expenses	800,000
Blue Sky, qualification fees and expenses	10,000
Transfer Agent fees and expenses	5,000
Miscellaneous expenses	130,750
Total	$ 3,000,000

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 bylaws that limit or eliminate the personal liability of our directors for a breach of their fiduciary duty of care as a director. The duty of care generally requires that, when acting on behalf of the corporation, directors exercise an informed business judgment based on all material information reasonably available to them. Consequently, a director will not be personally liable to us or our stockholders for monetary damages for breach of fiduciary duty as a director, except for liability for:

- any breach of the director's duty of loyalty to us or our stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- any act related to unlawful stock repurchases, redemptions or other distributions or payment of dividends; or
- any transaction from which the director derived an improper personal benefit.

These limitations of liability do not affect the availability of equitable remedies such as injunctive relief or rescission. Our amended and restated certificate of incorporation also authorizes us to indemnify our officers, directors and other agents to the fullest extent permitted under Delaware law.

As permitted by Section 145 of the Delaware General Corporation Law, our amended and restated bylaws provide that:

- we may indemnify our directors, officers, and employees to the fullest extent permitted by the Delaware General Corporation Law, subject to limited exceptions;

- we may advance expenses to our directors, officers and employees in connection with a legal proceeding to the fullest extent permitted by the Delaware General Corporation Law, subject to limited exceptions; and
- the rights provided in our amended and restated bylaws are not exclusive.

Our amended and restated certificate of incorporation, attached as Exhibit 3.3 hereto, and our amended and restated bylaws, attached as Exhibit 3.5 hereto, 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 our inception on August 5, 2015, which were not registered under the Securities Act.

1. In September 2015, we issued an aggregate of 3,699,259 shares of our Series A convertible preferred stock to 36 accredited investors at a price per share of $6.90 for aggregate proceeds to us of approximately $25.5 million.
2. In January 2016, we issued a warrant to purchase 40,257 shares of our common stock at an exercise price of $0.35 per share, as partial consideration for licenses under a license agreement. In January 2018, the warrant was exercised in full for proceeds to us of approximately $14,000.
3. In April 2016, we issued an aggregate of 5,178,968 shares of our Series A convertible preferred stock to 36 accredited investors at a price per share of $6.90 for aggregate proceeds to us of approximately $35.7 million.
4. In September and October 2017, we issued an aggregate of 8,919,302 shares of our Series B convertible preferred stock to 45 accredited investors at a price per share of $10.76 for aggregate proceeds to us of approximately $96.0 million.
5. In June, July and August 2018, we issued an aggregate of 1,611,603 shares of our Series C convertible preferred stock to 11 accredited investors at a price per share of $13.04 for aggregate proceeds to us of approximately $21.0 million.
6. We granted stock options and stock awards to employees, directors and consultants covering an aggregate of 3,615,348 shares of common stock, at a weighted-average exercise price of approximately $2.74 per share. Of these, options covering an aggregate of 137,986 shares were cancelled without being exercised and 41,711 unvested shares were repurchased concurrent with employee terminations.

7. We sold an aggregate of 2,729,252 shares of common stock to employees, directors and consultants for cash consideration in the aggregate amount of approximately $0.4 million pursuant to 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 (5) 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 (6) and (7) 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.

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, currently in effect.	S-1	08/23/18	3.1	
3.2	Form of Amended and Restated Certificate of Incorporation, effecting a stock split, to be in effect prior to the effectiveness of this registration statement.				X
3.3	Form of Amended and Restated Certificate of Incorporation, to be in effect immediately prior to the consummation of this offering.				X
3.4	Bylaws, currently in effect.	S-1	08/23/18	3.3	
3.5	Form of Amended and Restated Bylaws, to be in effect immediately prior to the consummation of this offering.				X
4.1	Reference is made to Exhibits 3.1 through 3.5.				
4.2	Form of Common Stock Certificate.				X
5.1	Opinion of Latham & Watkins LLP.				X
10.1(a)†	License Agreement, dated as of October 16, 2017, by and among Gritstone Oncology, Inc., Arbutus Biopharma Corporation and its subsidiary Protiva Biotherapeutics Inc.	S-1	08/23/18	10.1(a)	
10.1(b)†	Amendment Number One to License Agreement, dated as of July 20, 2018, by and among Gritstone Oncology, Inc., Arbutus Biopharma Corporation and its subsidiary Protiva Biotherapeutics Inc.	S-1	08/23/18	10.1(b)	

Exhibit Number	Exhibit Description	Incorporated by Reference			Filed Herewith
		Form	Date	Number	
10.2	Amended and Restated Investors' Rights Agreement dated as of June 29, 2018, by and among Gritstone Oncology, Inc. and the investors listed therein.	S-1	08/23/18	10.2	
10.3	Lease, dated as of November 11, 2015, by and between Gritstone Oncology, Inc. and Emery Station Joint Venture, LLC.	S-1	08/23/18	10.3	
10.4	Lease, dated as of February 11, 2016, by and between Gritstone Oncology, Inc. and BMR-Sidney Research Campus LLC.	S-1	08/23/18	10.4	
10.5†	Office Building Net Lease, dated as of March 24, 2017, by and between Gritstone Oncology, Inc. and Hacienda Portfolio Venture, LLC.	S-1	08/23/18	10.5	
10.6(a)#	2015 Equity Incentive Plan, as amended.	S-1	08/23/18	10.6(a)	
10.6(b)#	Form of Stock Option Agreement under 2015 Equity Incentive Plan.	S-1	08/23/18	10.6(b)	
10.6(c)#	Form of Early Exercise Stock Option Agreement under 2015 Equity Incentive Plan.	S-1	08/23/18	10.6(c)	
10.6(d)#	Form of Stock Purchase Right Grant Notice and Restricted Stock Purchase Agreement under 2015 Equity Incentive Plan.	S-1	08/23/18	10.6(d)	
10.7(a)#	2018 Incentive Award Plan.				X
10.7(b)#	Form of Stock Option Grant Notice and Stock Option Agreement under the 2018 Incentive Award Plan.				X
10.7(c)#	Form of Restricted Stock Award Grant Notice and Restricted Stock Award Agreement under the 2018 Incentive Award Plan.				X
10.7(d)#	Form of Restricted Stock Unit Award Grant Notice and Restricted Stock Unit Award Agreement under the 2018 Incentive Award Plan.				X
10.8#	2018 Employee Stock Purchase Plan.				X
10.9#	Employment Agreement by and between Gritstone Oncology, Inc. and Andrew Allen, M.D., Ph.D.				X
10.10#	Employment Agreement by and between Gritstone Oncology, Inc. and Matthew Hawryluk, Ph.D.				X
10.11#	Employment Agreement by and between Gritstone Oncology, Inc. and Karin Jooss, Ph.D.				X
10.12#	Employment Agreement by and between Gritstone Oncology, Inc. and Raphaël Rousseau, M.D., Ph.D.				X
10.13#	Employment Agreement by and between Gritstone Oncology, Inc. and Roman Yelensky, Ph.D.				X
10.14#	Employment Agreement by and between Gritstone Oncology, Inc. and Jean-Marc Bellemin.				X

Exhibit Number	Exhibit Description	Incorporated by Reference			Filed Herewith
		Form	Date	Number	
10.15#	Employment Agreement by and between Gritstone Oncology, Inc. and Jayant Aphale, Ph.D.				X
10.16#	Employment Agreement by and between Gritstone Oncology, Inc. and Erin Jones.				X
10.17#	Non-Employee Director Compensation Program.				X
10.18	Form of Indemnification Agreement.				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.	S-1	08/23/18	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.

Item 17. Undertakings.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act, and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer, or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question of whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

The undersigned Registrant hereby undertakes that:

1. For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this Registration Statement in reliance upon Rule 430A and contained in a form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this Registration Statement as of the time it was declared effective.

2. For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

The undersigned Registrant hereby undertakes to provide to the underwriters at the closing specified in the underwriting agreement certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

Signatures

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant has duly caused this Registration Statement on Form S-1 to be signed on its behalf by the undersigned, thereunto duly authorized, in Emeryville, California on September 17, 2018.

Gritstone Oncology, Inc.

By: /s/ Andrew Allen
Andrew Allen, M.D., Ph.D.
President and Chief Executive Officer

Power of Attorney

Pursuant to the requirements of the Securities Act, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Andrew Allen Andrew Allen, M.D., Ph.D.	President, Chief Executive Officer and Director *(Principal Executive Officer)*	September 17, 2018
/s/ Jean-Marc Bellemin Jean-Marc Bellemin	Chief Financial Officer *(Principal Financial and Accounting Officer)*	September 17, 2018
* Richard Heyman, Ph.D.	Director	September 17, 2018
* Steve Krognes	Director	September 17, 2018
* Judith Li	Director	September 17, 2018
* Nicholas Simon	Director	September 17, 2018
* Peter Svennilson	Director	September 17, 2018
* Thomas Woiwode, Ph.D.	Director	September 17, 2018
*By: /s/ Jean-Marc Bellemin Jean-Marc Bellemin Attorney-in-Fact		September 17, 2018

Exhibit 1.1

Gritstone Oncology, Inc.
Common Stock, par value $0.0001 per share

Underwriting Agreement

[●], 2018

Goldman Sachs & Co. LLC
Cowen and Company, LLC
Barclays Capital 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

c/o Cowen and Company, LLC
599 Lexington Avenue
New York, New York 10022

c/o Barclays Capital Inc.
745 Seventh Avenue
New York, New York 10019

Ladies and Gentlemen:

Gritstone Oncology, 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 several Underwriters named in Schedule I hereto (the "Underwriters") for whom you are acting as representatives (the "Representatives") an aggregate of [●] shares (the "Firm Shares") and, at the election of the Underwriters, up to [●] additional shares (the "Optional Shares") of 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").

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. 333-226976) (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, to the Company's knowledge, 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"; 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"; 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 [●] p.m. (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 and the 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, other than as set forth or contemplated in the Pricing Prospectus and the Prospectus; and, since the respective dates as of which information is given in the Registration Statement and the Pricing Prospectus and the Prospectus, there has not been (x) any change in the long-term debt or capital stock of the Company (other than as a result of (i) the exercise, if any, of stock options or the award, if any, of stock options, restricted stock or other awards 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 shares of Stock upon conversion of Company securities as described in the Pricing Prospectus and the Prospectus), or (y) any Material Adverse Effect (as defined below); as used in this Agreement, "Material Adverse Effect" means a material adverse change or effect, or any development involving a prospective material adverse change or effect, in

or affecting (i) the business, properties, general affairs, management, financial position, stockholders' equity, prospects 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, or to consummate the transactions contemplated in the Pricing Prospectus and the Prospectus;

(f) The Company does not own any real property and 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 and the 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) 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 the Prospectus, and (ii) duly qualified as a foreign corporation for the transaction of business and is in good standing (where such concept exists) 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;

(h) The Company has no subsidiaries;

(i) The Company has an authorized capitalization as set forth in the Pricing Prospectus and the 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;

(j) The 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 effectively waived;

(k) 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 and the 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 its 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;

(l) 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;

(m) The statements set forth in the Pricing Prospectus and Prospectus under the captions "Description of Capital Stock" and "Shares Eligible for Future Sale", insofar as they purport to constitute a summary of the terms of the Stock, and 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;

(n) Other than as set forth in the Pricing Prospectus and the 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;

(o) The Company is not and, after giving effect to the offering and sale of the Shares and the application of the proceeds thereof as described in the Pricing Prospectus and the Prospectus, will not be an "investment company", as such term is defined in the Investment Company Act of 1940, as amended (the "Investment Company Act");

(p) 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;

(q) 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;

(r) The Company maintains a system of internal control over financial reporting (as such term is defined in Rule 13a-15(f) under the Securities Exchange Act of 1934, as amended (the "Exchange Act")) that (i) 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 (ii) 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);

(s) Since the date of the latest audited financial statements included in the Pricing Prospectus and the 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;

(t) The Company maintains disclosure controls and procedures (as such term is defined in Rule 13a-15(e) under the Exchange Act) that 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;

(u) This Agreement has been duly authorized, executed and delivered by the Company;

(v) Neither the Company nor, to the knowledge of the Company, any director, officer, agent, employee, affiliate or other person associated with or acting on behalf of the Company has (i) directly or indirectly made, offered, promised or authorized any unlawful payment, contribution, gift, entertainment or other unlawful benefit or expense; (ii) made, offered, promised or authorized any direct or indirect unlawful payment; or (iii) violated or is in violation of any provision of the U.S. Foreign Corrupt Practices Act of 1977, as amended, the Bribery Act 2010 of the United Kingdom or any other applicable anti-bribery or anti-corruption law;

(w) 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;

(x) Neither the Company nor, to the knowledge of the Company, any director, officer, agent, employee or affiliate of the Company is 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"), and 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;

(y) 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; said 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 and in accordance with GAAP 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;

(z) 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");

(aa) There are no persons with registration rights or other similar rights to have any securities registered pursuant to the Registration Statement or otherwise registered by the Company under the Act except as have been validly waived or complied with in connection with the offering of the Shares;

(bb) (i) No labor disturbance by or dispute with current or former employees or officers of the Company exists or, to the Company's knowledge, is contemplated or threatened, and (ii) the Company is not aware of any existing or imminent labor disturbance by, or dispute with, the employees of any of the Company's principal suppliers, manufacturers or contractors. The Company is not a party to any collective bargaining agreement.

(cc) The Company has insurance covering its properties, operations, personnel and business, including business interruption insurance, which insurance is in amounts and insures against such losses and risks as are reasonable and is ordinary and customary for comparable companies in the same or similar businesses; and the Company (i) has not 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 nor (ii) has 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;

(dd) Except as would not, individually or in the aggregate, have a Material Adverse Effect, the Company and its directors, officers and employees, and to the Company's knowledge, its agents, affiliates and representatives, are, and at all times have been, in compliance with all applicable Health Care Laws (defined herein), including, but not limited to, the rules and regulations of the Food and Drug Administration ("FDA"), the U.S. Department of Health and Human Services ("HHS") Office of Inspector General, the Centers for Medicare & Medicaid Services, the HHS Office for Civil Rights, the U.S. Department of Justice and any other

governmental agency or body having jurisdiction over the Company or any of its properties, and has not engaged in any activities which are, as applicable, cause for false claims liability, civil penalties, or mandatory or permissive exclusion from Medicare, Medicaid, or any other local, state or federal healthcare program. For purposes of this Agreement, "Health Care Laws" means the federal Anti-kickback Statute (42 U.S.C. § 1320a-7b(b)), the Physician Payments Sunshine Act (42 U.S.C. § 1320a-7h), the civil False Claims Act (31 U.S.C. §§ 3729 et seq.), the criminal False Claims Act (42 U.S.C. § 1320a-7b(a)), all criminal laws relating to health care fraud and abuse, including but not limited to 18 U.S.C. Sections 286, 287, 1347 and 1349, and the health care fraud criminal provisions under the Health Insurance Portability and Accountability Act of 1996 (42 U.S.C. §§ 1320d et seq.) ("HIPAA"), the exclusions law (42 U.S.C. § 1320a-7), the civil monetary penalties law (42 U.S.C. § 1320a-7a), HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act (42 U.S.C. §§ 17921 et seq.), the Federal Food, Drug, and Cosmetic Act (21 U.S.C. §§ 301 et seq.), Medicare (Title XVIII of the Social Security Act), and Medicaid (Title XIX of the Social Security Act). The Company is not a party to or has any ongoing reporting obligations pursuant to any corporate integrity agreement, deferred prosecution agreement, monitoring agreement, consent decree, settlement order, plan of correction or similar agreement imposed by any governmental authority. The Company has not received any written notification, correspondence or other communication, including, without limitation, any FDA Form 483, notice of adverse finding, warning letter or untitled letter from the FDA or any similar regulatory authority, or any notification of any pending or threatened claim, suit, proceeding, hearing, enforcement, investigation, arbitration or other action, from any governmental authority alleging potential or actual material non-compliance by, or material liability of, the Company under any Health Care Laws;

(ee) The Company possesses, and is in compliance with the terms of, all applications, certificates, approvals, clearances, registrations, exemptions, franchises, licenses, permits, consents and other authorizations necessary to conduct its business (collectively, "Licenses"), issued by the appropriate Governmental Authorities, including, without limitation, all Licenses required by the FDA, or any component thereof, the National Institutes of Health ("NIH") and/or by any other U.S., state, local or foreign government or drug regulatory agency (collectively, the "Regulatory Agencies"), except where the failure to possess or comply with the same would not, individually or in the aggregate, have a Material Adverse Effect. All such Licenses are in full force and effect. The Company has fulfilled and performed all of its material obligations with respect to such Licenses and, to the Company's knowledge, no event has occurred which allows, or after notice or lapse of time would allow, revocation or termination thereof or results in any other material impairment of the rights of the holder of any License. The Company has not received any written notice of proceedings relating to the revocation or material adverse modification of any such Licenses and, to the Company's knowledge, no Regulatory Agency has taken any action to limit, suspend or revoke any such License possessed by the Company;

(ff) The pre-clinical studies and clinical trials that are described in the Registration Statement, the Pricing Prospectus and the Prospectus were and, if still pending, are being, conducted in all material respects in accordance with all applicable laws and regulations; the Company is not aware of any other pre-clinical studies or clinical trials, the results of which reasonably call into question the results described in the Registration Statement, the Pricing Prospectus and the Prospectus; and the Company has not received any written notices or correspondence from the FDA, any foreign, state or local governmental body exercising comparable authority or any Institutional Review Board requiring the termination, suspension, material adverse modification or clinical hold of any pre-clinical studies or clinical trials conducted by or on behalf of the Company:

(gg) Neither the Company nor any of its officers, employees, directors, or to the Company's knowledge, its agents or clinical investigators, has been excluded, suspended or debarred from participation in any U.S. federal health care program or human clinical research or, to the Company's knowledge, is subject to a governmental inquiry, investigation, proceeding, or other similar action that could reasonably be expected to result in any such debarment, suspension, or exclusion, or convicted of any crime or engaged in any conduct that would reasonably be expected to result in debarment under 21 U.S.C. § 335a;

(hh) Except as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, to the Company's knowledge, the Company owns or has valid, binding and enforceable licenses or other rights to practice and use all patents and patent applications, copyrights, trademarks, trademark registrations, service marks, service mark registrations, trade names, service names and know-how (including trade secrets and other unpatented and/or unpatentable proprietary or confidential information, systems or procedures) and all other technology and intellectual property rights necessary for the conduct, or the proposed conduct, of the business of the Company in the manner described in the Pricing Prospectus and the Prospectus (collectively, the "Company Intellectual Property"), and the conduct of its business (the development and commercialization of the product candidates described in the Pricing Prospectus and the Prospectus) has not and will not infringe or misappropriate any intellectual property rights of others, except as would not, individually or in the aggregate, have a Material Adverse Effect. Other than as disclosed in the Pricing Prospectus and the Prospectus, there are no rights of third parties to any of the intellectual property owned by the Company, and such intellectual property is owned by the Company free and clear of all material liens, security interests, or encumbrances. To the knowledge of the Company, the patents, trademarks and copyrights held or licensed by the Company included within the Company Intellectual Property are valid, enforceable and subsisting. To the Company's knowledge, there is no infringement by third parties of any of the Company Intellectual Property. Other than as disclosed in the Pricing Prospectus and the Prospectus, (i) the Company is not obligated to pay a material royalty, grant a license, or provide other material consideration to any third party in connection with the Company Intellectual Property, (ii) no action, suit, claim or other proceeding is pending or, to the

knowledge of the Company, is threatened, alleging that the Company is infringing, misappropriating, diluting or otherwise violating, or would, upon the commercialization of any product or service proposed in the Pricing Prospectus and the Prospectus to be conducted, infringe, misappropriate, dilute, or otherwise violate, any rights of others with respect to any of the Company's product candidates, processes or intellectual property, (iii) no action, suit, claim or other proceeding is pending or, to the knowledge of the Company, is threatened, challenging the validity, enforceability, scope, registration, ownership or use of any of the Company's Intellectual Property, (iv) no action, suit, claim or other proceeding is pending or, to the knowledge of the Company, is threatened, challenging the Company's rights in or to any Company Intellectual Property, (v) the Company has not received written notice of any claim of infringement, misappropriation or conflict with any asserted rights of others with respect to any of the Company's products, proposed products, processes or Company Intellectual Property, (vi) to the knowledge of the Company, no employee of the Company is in or has ever been in violation in any material respect of any term of any employment contract, patent disclosure agreement, invention assignment agreement, non-competition agreement, non-solicitation agreement nondisclosure agreement or any restrictive covenant to or with a former employer where the basis of such violation relates to such employee's employment with the Company or actions undertaken while employed or engaged with the Company, and (vii) the Company has taken reasonable measures to protect its confidential information and trade secrets and to maintain and safeguard the Company's Intellectual Property, including the execution of appropriate nondisclosure and confidentiality agreements;

(ii) Except as described in the Registration Statement, the Pricing Disclosure and the Prospectus, all patents and patent applications owned by or licensed to the Company or under which the Company has rights have, to the knowledge of the Company, been duly and properly filed and maintained; to the knowledge of the Company, there are no material defects in any of the patents or patent applications disclosed in the Registration Statement and the Prospectus as being owned by the Company; to the knowledge of the Company, the parties prosecuting such applications have complied with their duty of candor and disclosure to the USPTO in connection with such applications; and the Company is not aware of any facts required to be disclosed to the USPTO that were not disclosed to the USPTO and which would preclude the grant of a patent in connection with any such application or could form the basis of a finding of invalidity with respect to any patents that have issued with respect to such applications;

(jj) Any statistical and market-related data included in the Pricing Prospectus and the Prospectus are based on or derived from sources that the Company believes to be reliable and accurate in all material respects, and, to the extent required by such sources, the Company has obtained the written consent to the use of such data from such sources;

(kk) The Company possesses all licenses, certificates, permits and other authorizations issued by, and has made all declarations and filings with, the

appropriate federal, state, local or foreign governmental or regulatory authorities having jurisdiction over the Company that are necessary for the ownership or lease of its properties or the conduct of its business as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, except where the failure to possess or make the same would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect; and the Company has not received written notice of any revocation or modification of any such license, certificate, permit or authorization, except where such revocation or modification would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect;

(ll) The Company has filed all tax returns that are required to have been filed by them pursuant to applicable foreign, state and local law except insofar as the failure to file such returns would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect, and has paid all material taxes due pursuant to such returns or pursuant to any assessment received by the Company, except for such taxes, if any, as are being contested in good faith and as to which adequate reserves have been provided. The charges, accruals and reserves on the books of the Company in respect of any income and corporation tax liability for any years not finally determined are adequate to meet any assessments or re-assessments for additional income tax for any years not finally determined, except to the extent of any inadequacy that would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect. No tax deficiency has been determined adversely to the Company which has had (nor does the Company have any written notice or knowledge of any tax deficiency which could reasonably be expected to be determined adversely to the Company and which would, individually or in the aggregate, reasonably be expected to have) a Material Adverse Effect;

(mm) The Company has not taken and will not take, directly or indirectly, without giving effect to activities by the Underwriters, any action that is designed to or that has constituted or might reasonably be expected to cause or result in stabilization or manipulation of the price of the Shares;

(nn) The Company is not a party to any contract, agreement or understanding with any person (other than this Agreement) that would give rise to a valid claim against the Company or any Underwriter for a brokerage commission, finder's fee or like payment in connection with the offering and sale of the Shares;

(oo) The Company and its subsidiaries' information technology assets and equipment, computers, systems, networks, hardware, software, websites, applications, and databases (collectively, "IT Systems") are adequate for, and operate and perform in all material respects as required in connection with the operation of the business of the Company and its subsidiaries as currently conducted, free and clear of all material bugs, errors, defects, Trojan horses, time bombs, malware and other corruptants. The Company and its subsidiaries have implemented and maintained commercially reasonable controls, policies,

procedures, and safeguards to maintain and protect their material confidential information and the integrity, continuous operation, redundancy and security of all IT Systems and data (including all personal data and sensitive, confidential or regulated data (collectively, the "Confidential Data")) used in connection with their businesses, and there have been no breaches, violations, outages or unauthorized uses of or accesses to same, except for those that have been remedied without material cost or liability or the duty to notify any other person, nor any incidents under internal review or investigations relating to the same. The Company and its subsidiaries are presently in material compliance with all applicable laws or statutes and all judgments, orders, rules and regulations of any court or arbitrator or governmental or regulatory authority, internal policies and contractual obligations relating to the privacy and security of IT Systems and Confidential Data and to the protection of such IT Systems and Confidential Data from unauthorized use, access, misappropriation or modification; and

(pp) To the Company's knowledge, no relationship, direct or indirect, exists between or among the Company, on the one hand, and the directors, officers, stockholders, customers or suppliers of the Company, on the other, that is required by the Act to be described in the Registration Statement and the Prospectus and that is not so described in such documents and in the Registration Statement, the Pricing Disclosure Package and the Prospectus.

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.

(i) 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 the Representatives 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 the Representatives but in no event earlier than the First Time of Delivery (as defined in Section 4 hereof) or, unless the Representatives 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, in 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(l) hereof, will be delivered at the offices of Cooley LLP, 4401 Eastgate Mall, San Diego, California 92121-1909 (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" means 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) (i) During the period beginning from the date hereof and continuing to, and including, the 180th day 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, (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 clauses (i) or (ii) above is to be settled by delivery of Stock or such other securities, in cash or otherwise), or (iii) publicly disclose the intention to do any of the foregoing, in each case, without the prior written consent of the Representatives; provided, however, that the foregoing restrictions shall not apply to (1) the Shares to be sold hereunder, (2) any shares of Stock issued upon the conversion of convertible preferred stock described in the Registration Statement and the Prospectus outstanding on the date of this Agreement in connection with the offering contemplated by this Agreement, (3) any shares of Stock or any securities or other awards (including without limitation options, restricted stock or restricted stock units) convertible into, exercisable for, or that represent the right to receive, shares

of Stock pursuant to any stock option plan, incentive plan or stock purchase plan of the Company (collectively, "Company Stock Plans") or otherwise in equity compensation arrangements described in the Registration Statement and the Prospectus, (4) any shares of Stock issued upon the conversion, exercise or exchange of convertible, exercisable or exchangeable securities outstanding on the date of this Agreement and described in the Registration Statement and the Prospectus, (5) the filing by the Company of any registration statement on Form S-8 or a successor form thereto relating to any Company Stock Plan described in the Registration Statement and the Prospectus, (6) any shares of Stock issued 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, and (7) any shares of Stock or any securities convertible into or exchangeable for, or that represent the right to receive, shares of Stock issued 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 (7), the aggregate number of shares that the Company may sell or issue or agree to sell or issue pursuant to clause (7) shall not exceed 5.0% of the total number of shares of Stock issued and outstanding immediately following the completion of the transactions contemplated by this Agreement), and provided, further, that the recipient of any such shares of Stock or securities issued pursuant to clauses (2), (3) and (4) during the Lock-Up Period shall enter into an agreement substantially in the form of Annex II hereto;

(ii) If the Representatives, in their sole discretion, agree to release or waive the restrictions set forth in a lock-up letter delivered pursuant to Section 8(l) hereof for an officer or director of the Company and provide 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.

(iii) To enforce all existing agreements between the Company and any of its securityholders that prohibit the sale, transfer, assignment, pledge or hypothecation of any of the Company's securities in connection with the Company's initial public offering until, in respect of any particular securityholder, the earlier to occur of (i) the expiration of the Lock-Up Period or (ii) the expiration of any similar arrangement entered into by such securityholder with the Representatives; to direct the transfer agent to place stop transfer restrictions upon any such securities of the Company that are bound by such existing "lock-up," "market stand-off," "holdback" or similar provisions of such agreements for the duration of the periods contemplated in the preceding clause; and not to release or otherwise grant any waiver of such provisions in such agreements during such periods without the prior written consent of the Representatives, on behalf of the Underwriters;

(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 and the Prospectus under the caption "Use of Proceeds";

(i) To use its best efforts to list, subject to notice of issuance, the Shares on the Nasdaq Global Market;

(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;

(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) completion of the Lock-Up Period referred to in Section 5(e) hereof;

(n) To deliver to each Underwriter (or its agent), on the date of execution of this Agreement, a properly completed and executed Certification Regarding Beneficial Owners of Legal Entity Customers, together with copies of identifying documentation, and the Company undertakes to provide such additional supporting documentation as each Underwriter may reasonably request in connection with the verification of the foregoing Certification; and

(o) Not to exercise any contractual option to repurchase shares of Common Stock in connection with the termination of an individual's employment or other service relationship with the Company for a period of 60 days after the date of the termination of such individual.

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 III(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 such Underwriter reasonably believes 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 the Nasdaq Global Market; (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; and (viii) 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 amounts payable by the Company pursuant to clauses (iii) and (iv) and for fees and

disbursements of counsel to the Underwriters described in clauses (iii) and (v) shall not exceed $40,000 in the aggregate. It is understood, however, that, (x) except as provided in this Section, and Sections 9 and 12 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) Cooley LLP, counsel for the Underwriters, shall have furnished to you such written opinion or opinions, dated such Time of Delivery, in form and substance satisfactory to the Representatives, with respect to such matters as the Representatives may reasonably request, 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 the Representatives their written opinion and negative assurance letter, dated such Time of Delivery, in form and substance satisfactory to the Representatives;

(d) Fenwick & West LLP, intellectual property counsel for the Company, shall have furnished to the Representatives their written opinion, dated such Time of Delivery, in form and substance satisfactory to the Representatives;

(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 the Representatives a letter or letters, dated the respective dates of delivery thereof, in form and substance satisfactory to the Representatives;

(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, taken as a whole, 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) On or after the Applicable Time (i) no downgrading shall have occurred in the rating accorded the Company's debt securities by any "nationally recognized statistical rating organization", as that term is defined by the Commission for purposes of Rule 436(g)(2) under the Act, and (ii) no such organization shall have publicly announced that it has under surveillance or review, with possible negative implications, its rating of any of the Company's debt securities;

(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 on the Nasdaq Global Market; (ii) a suspension or material limitation in trading in the Company's securities on the Nasdaq Global Market; (iii) a general moratorium on commercial banking activities declared by either Federal, California State or New York 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 on the Nasdaq Global Market;

(j) The Company shall have obtained and delivered to the Underwriters executed copies of an agreement from each director, officer and other security holder of the Company representing all of the shares of capital stock of the Company, substantially to the effect set forth in Annex II hereof in form and substance satisfactory to the Representatives;

(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 (or such other time as may be agreed to by the Representatives and the Company); 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 against any losses, claims, damages or liabilities, joint or several, to which such Underwriter 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"), 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 Underwriter for any legal or other expenses reasonably incurred by such Underwriter 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, any roadshow, or any Section 5(d) Writing, in reliance upon and in conformity with the Underwriter Information.

(b) Each Underwriter, severally and not jointly, 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" means 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 [●] paragraph under the caption "Underwriting", and the information contained in the [●] paragraphs under the caption "Underwriting".

(c) Promptly after receipt by an indemnified party under subsection (a) or (b) of this Section 9 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, 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 employee, officer and director of each Underwriter and each person, if any, who controls any Underwriter within the meaning of the Act and each broker-dealer or other 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 and to each person, if any, who controls the Company within the meaning of the Act.

10. (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.

11. The respective indemnities, rights of contribution, 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.

12. 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.

13. 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 or by the Representatives on behalf of the Underwriters.

All statements, requests, notices and agreements hereunder shall be in writing, and (A) if to the Underwriters shall be delivered or sent by mail, telex or facsimile transmission to you as the representatives (i) in care of Goldman Sachs & Co. LLC, 200 West Street, New York, New York 10282-2198, Attention: Registration Department; (ii) in care of Cowen and Company, LLC, Attention: Head of Equity Capital Markets, Fax 646-562-1249 with a copy to the General Counsel, Fax 646-562-1124; (iii); in care of Barclays Capital Inc., 745 Seventh Avenue, New York, New York 10019, Attention: Syndicate Registration; and (B) if to the Company shall be delivered or sent by mail, telex or facsimile transmission to the address of the Company set forth on the cover of the Registration Statement, Attention: Chief Executive Officer, with a copy (which copy shall not constitute notice) to: Latham & Watkins LLP, 140 Scott Drive, Menlo Park, California 94025, Attention: Alan C. Mendelson, Esq. and 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. 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.

14. 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 11 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.

15. Time shall be of the essence of this Agreement. As used herein, the term "business day" means any day when the Commission's office in Washington, D.C. is open for business.

16. 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.

17. 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.

18. 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 results 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.

19. 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.

20. 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.

21. 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.

[Signature Page Follows]

If the foregoing is in accordance with your understanding, please sign and return to us one for the Company and each of the Representatives plus one for each counsel 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.

Very truly yours,

Gristone Oncology, Inc.

By:
Name:
Title:

Accepted as of the date hereof:

Goldman Sachs & Co. LLC

By:
Name:
Title:

Cowen and Company, LLC

By:
Name:
Title:

Barclays Capital Inc.

By:
Name:
Title:

On behalf of each of the Underwriters

SCHEDULE I

Underwriter	Total Number of Firm Shares to be Purchased	Number of Optional Shares to be Purchased if Maximum Option Exercised
Goldman Sachs & Co. LLC	[●]	[●]
Cowen and Company, LLC	[●]	[●]
Barclays Capital Inc.	[●]	[●]
BTIG, LLC	[●]	[●]
Total	[●]	[●]

SCHEDULE II

(a) Issuer Free Writing Prospectuses not included in the Pricing Disclosure Package:

[Electronic roadshow dated [●]]

(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:

[●]

ANNEX I

[Form of Press Release]

Gritstone Oncology, Inc.
[Date]

Gritstone Oncology, Inc. (the "Company") announced today that Goldman Sachs & Co. LLC, Cowen and Company, LLC and Barclays Capital Inc., the joint book-running managers in the Company's recent public sale of shares of common stock, are [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.

ANNEX II

[Form of Lock-Up Agreement]

Gritstone Oncology, Inc.

Lock-Up Agreement

[●], 2018

Goldman Sachs & Co. LLC
Cowen and Company, LLC
Barclays Capital Inc.

As representatives of the several Underwriters
named in Schedule I to the Underwriting Agreement

c/o Goldman Sachs & Co. LLC
200 West Street
New York, NY 10282-2198

c/o Cowen and Company, LLC
599 Lexington Avenue
New York, NY 10022

c/o Barclays Capital Inc.
745 Seventh Avenue
New York, New York 10019

Re: Gritstone Oncology, Inc. - Lock-Up Agreement

Ladies and Gentlemen:

The undersigned understands that you, as representatives (the "***Representatives***"), propose to enter into an underwriting agreement (the "***Underwriting Agreement***") on behalf of the several Underwriters named in Schedule I to such agreement (collectively, the "***Underwriters***"), with Gritstone Oncology, Inc., a Delaware corporation (the "***Company***"), providing for a public offering (the "***Public Offering***") of shares (the "***Shares***") of Common Stock of the Company ("***Common Stock***") pursuant to a Registration Statement on Form S-1 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 on the date hereof and continuing to and including the date 180 days after the date of the final prospectus (the "***Final Prospectus***") covering the Public Offering (the "***Lock-Up Period***"), the undersigned will not, without the prior written consent of the Representatives on behalf of the Underwriters, and subject to the exceptions set forth in this Lock-Up Agreement, offer, sell, contract to sell, pledge, grant any option to purchase, make any short sale or otherwise dispose of any shares of Common Stock, or any options or warrants to purchase any shares of Common Stock, or any securities convertible

into, exchangeable for or that represent the right to receive shares of Common Stock, 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***"). 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. 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 issuer-directed Shares the undersigned may purchase in the Public Offering. In addition, the undersigned agrees that, without the prior written consent of the Representatives on behalf of the Underwriters, it will not, during the Lock-Up Period, make any demand for or exercise any right with respect to, the registration of any shares of Common Stock or any security convertible into or exercisable or exchangeable for shares of Common Stock.

Notwithstanding the foregoing, the undersigned may, without the consent of the Representatives:

(a) Transfer or dispose of the Undersigned's Shares:

(i) as a *bona fide* gift or gifts, provided that the donee or donees thereof agree to be bound in writing by the restrictions set forth herein;

(ii) to any trust for the direct or indirect benefit of the undersigned or the immediate family (as defined below) of the undersigned, provided that the trustee of the trust agrees to be bound in writing by the restrictions set forth herein, and provided further that any such transfer shall not involve a disposition for value;

(iii) if the undersigned is a corporation, corporation, partnership, limited liability company, trust or other business entity (A) to another corporation, partnership, limited liability company, trust or other business entity that is an affiliate (as defined in Rule 405 promulgated under the Securities Act of 1933, as amended) of the undersigned or the immediate family of the undersigned, or to any investment fund or other entity controlled or managed by the undersigned, or (B) as part of a distribution, transfer or disposition without consideration by the undersigned to its stockholders, partners, members, beneficiaries or other equity holders; provided, however, that in the case of any transfer or disposition contemplated by clauses (A) or (B) of this paragraph (iii), (x) it shall be a condition to the transfer or disposition that the transferee execute an agreement stating that the transferee is receiving and holding such securities subject to the restrictions on transfer set forth in this Lock-Up Agreement and there shall be no further transfer of such securities except in accordance with this Lock-Up Agreement, and (y) any such transfer shall not involve a disposition for value; or

(iv) by will, other testamentary document or intestate succession upon the death of the undersigned, provided (x) that the legatee, heir or other transferee agrees to be bound in writing by the restrictions on transfer set forth in this Lock-Up Agreement, and (y) any such transfer shall not involve a disposition for value;

(b) exercise on a cash basis an option to purchase shares of Common Stock granted under any stock incentive plan or stock purchase plan of the Company described in the Final 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 and no filing under Section 16 of the Exchange Act or other public filing, report or announcement reporting a reduction in the aggregate beneficial ownership of the Undersigned's Shares shall be required or shall be voluntarily made during the period beginning on the date hereof and continuing to and including the date that is 30 days after the date of the Final Prospectus (the "***30 Day Period***"), and after the 30 Day Period, if the undersigned is required to file a report under Section 16 of the Exchange Act reporting a reduction in the aggregate beneficial ownership of the Undersigned's Shares during the Lock-Up Period, the undersigned shall clearly indicate in the footnotes thereto that the filing relates to the circumstances described in this paragraph (b) and no other public filing or announcement shall be required or shall be made voluntarily in connection with such exercise;

(c) establish a trading plan pursuant to Rule 10b5-1 under the Securities Exchange Act of 1934, as amended (the "***Exchange Act***"), for the transfer of the Undersigned's Shares, provided that such plan does not provide for any transfers of Common Stock during the Lock-Up Period and no filing under the Exchange Act nor any other public filing or disclosure of such trading plan shall be made during the Lock-Up Period;

(d) transfer or dispose of the Undersigned's Shares (i) acquired in the Public Offering if the undersigned is not an officer or director, or (ii) 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 Lock-Up Period;

(e) transfer or surrender to the Company the Undersigned's Shares (i) 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, provided if the undersigned is required to file a report under Section 16 of the Exchange Act reporting a reduction in aggregate beneficial ownership of the Undersigned's Shares during the Lock-Up Period, the undersigned shall clearly indicate in the footnotes thereto that the filing relates to the termination of the undersigned's employment or other services, and provided further that such contractual arrangement (or a form thereof) is described in the Final Prospectus or filed as an exhibit to the Registration Statement; (ii) 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 Final Prospectus, provided that any shares of Common Stock issued upon vesting of such equity award (other than shares withheld to cover tax withholdings) shall continue to be subject to the restrictions set forth herein until the expiration of the Lock-Up Period and any required filing under Section 16 of the Exchange Act shall clearly indicate in the footnotes thereto that the filing relates to the circumstances described in this clause (ii) and no other public filing or announcement shall be required or shall be made voluntarily in connection with such transfer or surrender; or (iii) in connection with the "cashless" exercise by the undersigned of an option to purchase shares of Common Stock granted under any stock incentive plan or stock purchase plan of the Company described in the Final 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 shares of Common Stock issued upon exercise of such option (other than

the shares surrendered to cover payment of the exercise price) shall continue to be subject to the restrictions set forth herein until the expiration of the Lock-Up Period and no filing under Section 16 of the Exchange Act or other public filing, report or announcement reporting a reduction in the aggregate beneficial ownership of the Undersigned's Shares shall be required or shall be voluntarily made during the 30 Day Period, and after the 30 Day Period, if the undersigned is required to file a report under Section 16 of the Exchange Act reporting a reduction in the aggregate beneficial ownership of the Undersigned's Shares during the Lock-Up Period, the undersigned shall clearly indicate in the footnotes thereto that the filing relates to the circumstances described in this clause (iii) and no other public filing or announcement shall be required or shall be made voluntarily in connection with such exercise; and

(f) transfer or dispose of the Undersigned's Shares by operation of law pursuant to a qualified domestic order or in connection with a divorce settlement or other court order, provided that the recipient of such securities shall execute and deliver to the Representatives a lock-up letter in substantially the form of this Lock-Up Agreement, and provided further that any required filing under Section 16 of the Exchange Act shall indicate in the footnotes thereto that the filing relates to the circumstances described in this paragraph (f) and no other public announcement shall be required or shall be made voluntarily in connection with such transfer or disposition.

In addition, with respect to paragraphs (a)(i)-(iv) above, it shall be a condition to such transfer or disposition that no filing under the Exchange Act nor any other public filing or disclosure of such transfer or disposition by or on behalf of the undersigned, reporting a reduction in beneficial ownership of the Undersigned's Shares, shall be required or made until after the expiration of the Lock-Up Period (other than a filing on Schedule 13F or 13G that is required to be filed during the Lock-Up Period).

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 (as defined below) 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 set forth 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.

For purposes of this Lock-Up Agreement, "***immediate family***" means any relationship by blood, marriage or adoption, not more remote than first cousin.

The undersigned now has, and, except as contemplated by paragraphs (a) through (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. 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.

If the undersigned is an officer or director of the Company, (i) the Representatives 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 shares of Common Stock, the Representatives will notify the Company of the impending release or waiver, and (ii) the Company has agreed 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 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 Lock-Up Agreement to the extent and for the duration that such terms remain in effect at the time of the transfer.

In the event that, during the Lock-Up Period, the Representatives release or waive any prohibition set forth in this Lock-Up Agreement on the transfer of shares of Common Stock held by any director, officer or Significant Holder (as defined below), the same percentage of the total number of outstanding shares of Common Stock held by the undersigned on the date of such release or waiver as the percentage of the total number of outstanding shares of Common Stock held by such director, officer or such Significant Holder on the date of such release or waiver that are the subject of such waiver shall be immediately and fully released on the same terms from the applicable prohibition(s) set forth herein. For the purposes of the foregoing, a "***Significant Holder***" shall mean any person or entity that (together with any investment funds affiliated with such person or entity) beneficially owns 1% or more of the total outstanding shares of Common Stock. Notwithstanding the foregoing, the provisions of this paragraph will not apply (1) if the release or waiver is effected solely to permit a transfer not involving a disposition for value, (2) if the transferee agrees in writing to be bound by the same terms described in this Lock-Up Agreement to the extent and for the duration that such terms remain in effect at the time of transfer, (3) in the case of any secondary underwritten public offering of shares of Common Stock (including a secondary underwritten public offering with a primary component), (4) if the release or waiver is granted to any individual party by the Representatives in an amount, individually or in the aggregate, less than or equal to $1,000,000 in value of Common Stock, or (5) if the release or waiver is granted due to circumstances of an emergency or hardship as determined by the Representatives in their sole judgment. The Representatives shall use commercially reasonable efforts to promptly notify the Company of each such release (provided that the failure to provide such notice shall not give rise to any claim or liability against the Representatives or the Underwriters). The undersigned further acknowledges that the Representatives are under no obligation to inquire into whether, or to ensure that, the Company notifies the undersigned of the delivery by the Representatives of any such notice, which is a matter between the undersigned and the Company.

Notwithstanding anything to the contrary contained herein, this Lock-Up Agreement will automatically terminate and the undersigned will be released from all of his, her or its obligations hereunder upon the earliest to occur, if any, of (i) prior to the execution of the Underwriting Agreement, the Company advises the Representatives in writing that it has determined not to proceed with the Public Offering, (ii) the Company files an application to withdraw the registration statement related to the Public Offering, (iii) the Underwriting Agreement is executed but is terminated (other than the provisions thereof which survive termination) prior to payment for and delivery of the Shares to be sold thereunder, or (iv) October 31, 2018, in the event that the Underwriting Agreement has not been executed by such date; *provided*, *however*, that the Company may, by written notice to you prior to such date, extend such date for a period of up to an additional 90 days.

The undersigned understands that the Company and the Underwriters are relying upon this Lock-Up Agreement in proceeding toward consummation of the Public 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,

IF AN INDIVIDUAL:

By: _____
(duly authorized signature)

Name: _____
(please print full name)

Address:

_____

_____

E-mail: _____

IF AN ENTITY:

_____
(please print complete name of entity)

By: _____
(duly authorized signature)

Name: _____
(please print full name)

Title: _____
(please print full title)

Address:

_____

_____

E-mail: _____

AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION
OF
GRITSTONE ONCOLOGY, INC.

(Pursuant to Sections 242 and 245 of the
General Corporation Law of the State of Delaware)

Gritstone Oncology, Inc., a corporation organized and existing under and by virtue of the provisions of the General Corporation Law of the State of Delaware (the "**General Corporation Law**"),

DOES HEREBY CERTIFY:

1. That the name of this corporation is Gritstone Oncology, Inc., and that this corporation was originally incorporated pursuant to the General Corporation Law on August 5, 2015.

2. That the Board of Directors of this corporation duly adopted resolutions proposing to amend and restate the Certificate of Incorporation of this corporation, declaring said amendment and restatement to be advisable and in the best interests of this corporation and its stockholders, and authorizing the appropriate officers of this corporation to solicit the consent of the stockholders therefor, which resolution setting forth the proposed amendment and restatement is as follows:

RESOLVED, that the Certificate of Incorporation of this corporation be amended and restated in its entirety to read as follows:

FIRST: The name of this corporation is Gritstone Oncology, Inc. (the "**Corporation**").

SECOND: The address of the registered office of the Corporation in the State of Delaware is 251 Little Falls Drive, Wilmington, Delaware 19808, County of New Castle. The name of its registered agent at such address is Corporation Service Company.

THIRD: The nature of the business or purposes to be conducted or promoted is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law.

FOURTH: REVERSE STOCK SPLIT

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 6.9 shares of Common Stock (as defined below) issued and outstanding immediately prior to the Effective Time, shall, automatically and without any further action on the part of any stockholders of the Corporation, be reclassified as one share of Common Stock and each 6.9 shares of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock (each, as defined below) issued and outstanding immediately prior to the Effective Time shall, automatically and without any further action on the part of any stockholders of the Corporation, be reclassified as one share of Series A 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 Corporation's Board of Directors (the "**Board of Directors**")). All share, per share and dollar references in this Certificate of Incorporation shall be adjusted for the Reverse Stock Split only as explicitly provided herein.

FIFTH: The total number of shares of all classes of stock which the Corporation shall have authority to issue is (i) 175,250,000 shares of Common Stock, $0.0001 par value per share ("**Common Stock**") and (ii) 139,228,319 shares of Preferred Stock, $0.0001 par value per share ("**Preferred Stock**").

The following is a statement of the designations and the powers, privileges and rights, and the qualifications, limitations or restrictions thereof in respect of each class of capital stock of the Corporation.

A. COMMON STOCK

1. General. The voting, dividend and liquidation rights of the holders of the Common Stock are subject to and qualified by the rights, powers and preferences of the holders of the Preferred Stock set forth herein.

2. Voting. The holders of the Common Stock are entitled to one vote for each share of Common Stock held at all meetings of stockholders (and written actions in lieu of meetings); provided, however, that, except as otherwise required by law, holders of Common Stock, as such, shall not be entitled to vote on any amendment to the Certificate of Incorporation that relates solely to the terms of one or more outstanding series of Preferred Stock if the holders of such affected series are entitled, either separately or together with the holders of one or more other such series, to vote thereon pursuant to the Certificate of Incorporation or pursuant to the General Corporation Law. There shall be no cumulative voting. The number of authorized shares of Common Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by (in addition to any vote of the holders of one or more series of Preferred Stock that may be required by the terms of the Certificate of Incorporation) the affirmative vote of the holders of shares of capital stock of the Corporation representing a majority of the votes represented by all outstanding shares of capital stock of the Corporation entitled to vote, irrespective of the provisions of Section 242(b)(2) of the General Corporation Law.

B. PREFERRED STOCK

The Preferred Stock authorized by the Certificate of Incorporation shall be divided into series as provided herein. 61,260,000 shares of the authorized Preferred Stock of the Corporation are designated Series A Preferred Stock, par value $0.0001 per share (the "**Series A Preferred Stock**"), 61,543,319 shares of the authorized Preferred Stock of the Corporation are designated Series B Preferred Stock, par value $0.0001 per share (the "**Series B Preferred Stock**"), and 16,425,000 shares of the authorized Preferred Stock of the Corporation are designated Series C Preferred Stock, par value $0.0001 per share (the "**Series C Preferred Stock**"), with the following rights, preferences, powers, privileges and restrictions, qualifications and limitations. Unless otherwise indicated, references to "sections" in this Part B of this Article Fifth refer to sections of Part B of this Article Fifth.

1. Dividends.

The holders of shares of 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 (payable other than in Common Stock or other securities and rights convertible into or entitling the holder thereof to receive, directly or indirectly, additional shares of Common Stock of the Corporation) on the Common Stock, at the rate of 8% of the Original Issue Price (as defined below) for the applicable series of Preferred Stock per annum on each share of Preferred Stock then outstanding, payable when, as and if declared by the Board of Directors. Such dividends shall not be cumulative. After payment of such dividends, any additional dividends shall be distributed among the holders of Preferred Stock and Common Stock pro rata based on the number of shares of Common Stock then held by each holder (assuming conversion of all such Preferred Stock into Common Stock).

2. Liquidation, Dissolution or Winding Up; Certain Mergers, Consolidations and Asset Sales.

2.1 Preferential Payments to Holders of Preferred Stock.

2.1.1 In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event (as defined below), the holders of shares of Series C Preferred Stock then outstanding shall be entitled to be paid out of the assets of the Corporation available for distribution to its stockholders before any payment shall be made to the holders of Series B Preferred Stock, Series A Preferred Stock or Common Stock by reason of their ownership thereof, an amount per share equal to the Series C Original Issue Price (as defined below), plus any dividends declared but unpaid thereon (such amount, the "**Series C Liquidation Preference Amount**"). 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 2.1.1, 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. As of the Effective Time, the "**Series A Original Issue Price**" means $6.90 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series A Preferred Stock occurring after the Effective Time. As of the Effective Time, the "**Series B Original Issue Price**" means $10.76 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series B Preferred Stock occurring after the Effective Time. As of the Effective Time, the "**Series C Original Issue Price**" means $13.04 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series C Preferred Stock occurring after the Effective Time. "**Original Issue Price**" means the Series A Original Price, Series B Original Issue Price and Series C Original Issue Price, individually or collectively, as applicable.

2.1.2 In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event (as defined below), after the payment of all preferential amounts required to be paid to the holders of shares of Series C Preferred Stock pursuant to Section 2.1.1, the holders of shares of Series B Preferred Stock then outstanding shall be entitled to be paid out of the assets of the Corporation available for distribution to its stockholders before any payment shall be made to the holders of Series A Preferred Stock or Common Stock by reason of their ownership thereof, an amount per share equal to the Series B Original Issue Price, plus any dividends declared but unpaid thereon (such amount, the "**Series B Liquidation Preference Amount**"). 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 2.1.2, 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.

2.1.3 In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event, after the payment of all preferential amounts required to be paid to the holders of shares of Series C Preferred Stock pursuant to Section 2.1.1 and Series B Preferred Stock pursuant Section 2.1.2, the holders of shares of Series A Preferred Stock then outstanding shall be entitled to be paid out of the assets of the Corporation available for distribution to its stockholders before any payment shall be made to the holders of Common Stock by reason of their ownership thereof, an amount per share equal to the Series A Original Issue Price, plus any dividends declared but unpaid thereon. 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 (after payment in full of the preferential payments to the holders of Series C Preferred Stock pursuant to Section 2.1.1 hereof and the holders of Series B Preferred Stock pursuant to Section 2.1.2 hereof) 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 2.1.3, 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.

2.2 Distribution of Remaining Assets. In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event, after the payment of all preferential amounts required to be paid to the holders of shares of Preferred Stock pursuant to Section 2.1, the remaining assets of the Corporation available for distribution to its stockholders shall be distributed among the holders of the shares of Preferred Stock and Common Stock, pro rata based on the number of shares held by each such holder, treating for this purpose all such securities as if they had been converted to Common Stock pursuant to the terms of the Amended and Restated Certificate of Incorporation immediately prior to such liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event; provided, however, that if the aggregate amount which the holders of Series A Preferred Stock are entitled to receive under Sections 2.1 and 2.2 shall exceed five (5) times the Series A Original Issue Price per share of Series A Preferred Stock (the "**Series A Maximum Participation Amount**"), then, in lieu of the amounts otherwise payable under Sections 2.1 and 2.2, each holder of Series A Preferred Stock shall instead be entitled to receive upon such liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event, the greater of (i) the Series A Maximum Participation Amount and (ii) the amount such holder would have received if all shares of Series A Preferred Stock had been converted into Common Stock immediately prior to such liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event; provided further, that if the aggregate amount which any individual holder of Series B Preferred Stock is entitled to receive under Sections 2.1 and 2.2 shall exceed five (5) times the Series B Original Issue Price per share of Series B Preferred Stock paid by such holder (the "**Series B Maximum Participation Amount**"), then, in lieu of the amounts otherwise payable under Sections 2.1 and 2.2, each holder of Series B Preferred Stock shall instead be entitled to receive upon such liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event, the greater of (i) the Series B Maximum Participation Amount and (ii) the amount such holder would have received if all shares of Series B Preferred Stock had been converted into Common Stock immediately prior to such liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event; and provided further, that if the aggregate amount which any individual holder of Series C Preferred Stock is entitled to receive under Sections 2.1 and 2.2 shall exceed five (5) times the Series C Original Issue Price per share of Series C Preferred Stock paid by such holder (the "**Series C Maximum Participation Amount**"), then, in lieu of the amounts otherwise payable under Sections 2.1 and 2.2, each holder of Series C Preferred Stock shall instead be entitled to receive upon such liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event, the greater of (i) the Series C Maximum Participation Amount and (ii) the amount such holder would have received if all shares of Series C Preferred Stock had been converted into Common Stock immediately prior to such liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event. The aggregate amount which a holder of a share of Preferred Stock is entitled to receive under Sections 2.1 and 2.2 is hereinafter referred to as the "**Liquidation Amount**."

2.3 Deemed Liquidation Events.

2.3.1 Definition. Each of the following events shall be considered a "**Deemed Liquidation Event**" unless the Requisite Series C Holders (as defined below) and the holders of at least a majority of the outstanding shares of Preferred Stock elect otherwise by written notice sent to the Corporation at least 10 days prior to the effective date of any such event:

(a) a merger or consolidation in which

(i) the Corporation is a constituent party or

(ii) a subsidiary of the Corporation is a constituent party and the Corporation issues shares of its capital stock pursuant to such merger or consolidation,

except any such merger or consolidation involving the Corporation or a subsidiary in which the shares of capital stock of the Corporation outstanding immediately prior to such merger or consolidation continue to represent, or are converted into or exchanged for shares of capital stock that represent, immediately following such merger or consolidation, at least a majority, by voting power, of the capital stock of (1) the surviving or resulting corporation; or (2) if the surviving or resulting corporation is a wholly owned subsidiary of another corporation immediately following such merger or consolidation, the parent corporation of such surviving or resulting corporation; or

(b) the sale, lease, transfer, exclusive license or other disposition, in a single transaction or series of related transactions, by the Corporation or any subsidiary of the Corporation of all or substantially all the assets of the Corporation and its subsidiaries taken as a whole, or the sale or disposition (whether by merger, consolidation or otherwise) of one or more subsidiaries of the Corporation if substantially all of the assets of the Corporation and its subsidiaries taken as a whole are held by such subsidiary or subsidiaries, except where such sale, lease, transfer, exclusive license or other disposition is to a wholly owned subsidiary of the Corporation.

2.3.2 Effecting a Deemed Liquidation Event.

(a) The Corporation shall not have the power to effect a Deemed Liquidation Event referred to in Section 2.3.1(a)(i) unless the agreement or plan of merger or consolidation for such transaction (the "**Merger Agreement**") provides that the consideration payable to the stockholders of the Corporation shall be allocated among the holders of capital stock of the Corporation in accordance with Sections 2.1 and 2.2.

(b) In the event of a Deemed Liquidation Event referred to in Sections 2.3.1(a)(ii) or 2.3.1(b), if the Corporation does not effect a dissolution of the Corporation under the General Corporation Law within ninety (90) days after such Deemed Liquidation Event, then (i) the Corporation shall send a written notice (the "**Redemption Notice**") to each holder of Preferred Stock no later than the ninetieth (90th) day after the Deemed Liquidation Event advising such holders of their right (and the requirements to be met to secure such right) pursuant to the terms of the following clause to require the redemption of such shares of Preferred Stock, and (ii) if the holders of at least a majority of the then-outstanding shares of Preferred Stock so request in a written instrument delivered to the Corporation not later than one hundred twenty (120) days after such Deemed Liquidation Event, the Corporation shall use the consideration received by the Corporation for such Deemed Liquidation Event (net of any retained liabilities associated with the assets sold or technology licensed, as determined in good faith by the Board of Directors), together with any other assets of the Corporation available for distribution to its stockholders, all to the extent permitted by Delaware law governing distributions to stockholders (the "**Available Proceeds**"), on the one hundred fiftieth (150th) day after such Deemed Liquidation Event, to redeem all outstanding shares of Preferred Stock at a price per share equal to the applicable Liquidation Amount for each series of Preferred Stock. Notwithstanding the foregoing,

in the event of a redemption pursuant to the preceding sentence, if the Available Proceeds are not sufficient to redeem all outstanding shares of Preferred Stock, the Corporation shall (1) first, redeem, at a per share price equal to the Liquidation Amount for the Series C Preferred Stock, such number of each holder's outstanding shares of Series C Preferred Stock as required to pay each such holder an amount equal to the product of (x) the Series C Liquidation Preference Amount and (y) the total number of outstanding shares of Series C Preferred Stock held by such holder (or, if the Available Proceeds are not sufficient to redeem all such shares, a pro rata portion of each holder's shares of Series C Preferred Stock to the extent of such Available Proceeds, based on the respective amounts which would otherwise be payable under this clause (1) in respect of such shares if such amount were sufficient to redeem all such shares), (2) second, after the redemption of all outstanding shares of Series C Preferred Stock described in clause (1) above, redeem, at a per share price equal to the Liquidation Amount for the Series B Preferred Stock, such number of each holder's outstanding shares of Series B Preferred Stock as required to pay each such holder an amount equal to the product of (x) the Series B Liquidation Preference Amount and (y) the total number of outstanding shares of Series B Preferred Stock held by such holder (or, if the Available Proceeds are not sufficient to redeem all such shares, a pro rata portion of each holder's shares of Series B Preferred Stock to the extent of such Available Proceeds, based on the respective amounts which would otherwise be payable under this clause (2) in respect of such shares if such amount were sufficient to redeem all such shares), (3) after the redemption of all outstanding shares of Series B Preferred Stock described in clause (2) above, redeem, at a per share price equal to the Liquidation Amount for the Series A Preferred Stock, such number of each holder's outstanding shares of Series A Preferred Stock as required to pay each such holder an amount equal to the product of (x) the Series A Liquidation Preference Amount and (y) the total number of outstanding shares of Series A Preferred Stock held by such holder (or, if the Available Proceeds are not sufficient to redeem all such shares, a pro rata portion of each holder's shares of Series A Preferred Stock to the extent of such Available Proceeds, based on the respective amounts which would otherwise be payable under this clause (3) in respect of such shares if such amount were sufficient to redeem all such shares), and (4) after the redemption of all outstanding shares of Preferred Stock described in clauses (1), (2) and (3) above, redeem, at a per share price equal to the applicable Liquidation Amount for each series of Preferred Stock, all remaining outstanding shares of Preferred Stock (or, if the Available Proceeds are not sufficient to redeem all such shares, a pro rata portion of each holder's shares of Preferred Stock to the extent of such Available Proceeds, based on the respective amounts which would otherwise be payable under this clause (4) in respect of such shares if such amount were sufficient to redeem all such shares); in each case under clauses (1) through (4) above, redeeming the remaining shares to be redeemed under such clause, in the same manner and with the same priority, as soon as it may lawfully do so under Delaware law governing distributions to stockholders.

(i) Each Redemption Notice shall state: (1) the number of shares of Preferred Stock held by the holder that the Corporation shall redeem; (2) the date of redemption (the "**Redemption Date**") and the amount to be paid to such holder; and (3) for holders of shares in certificated form, that the holder is to surrender to the Corporation, in the manner and at the place designated, his, her or its certificate or certificates representing the shares of Preferred Stock to be redeemed.

(ii) On or before the Redemption Date, each holder of shares of Preferred Stock to be redeemed shall surrender the certificate or certificates representing such shares (or, if such registered holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate) to the Corporation, in the manner and at the place designated in the Redemption Notice, and thereupon the Available Proceeds for such shares shall be payable to the order of the person whose name appears on such certificate or certificates as the owner thereof.

Prior to the distribution or redemption provided for in this Section 2.3.2(b), the Corporation shall not expend or dissipate the consideration received for such Deemed Liquidation Event, except to discharge expenses incurred in connection with such Deemed Liquidation Event or in the ordinary course of business.

2.3.3 Amount Deemed Paid or Distributed. The amount deemed paid or distributed to the holders of capital stock of the Corporation upon any such merger, consolidation, sale, transfer, exclusive license, other disposition or redemption shall be the cash or the value of the property, rights or securities paid or distributed to such holders by the Corporation or the acquiring person, firm or other entity. The value of such property, rights or securities shall be determined in good faith by the Board of Directors.

2.3.4 Allocation of Escrow and Contingent Consideration. In the event of a Deemed Liquidation Event, if any portion of the consideration payable or distributable to the stockholders of the Corporation is payable or distributable only upon satisfaction of contingencies (the "**Additional Consideration**"), the Merger Agreement (if any) shall provide that, and the Corporation shall otherwise ensure that, (a) the portion of such consideration that is not Additional Consideration (such portion, the "**Initial Consideration**") shall be allocated among the holders of capital stock of the Corporation in accordance with Sections 2.1 and 2.2 as if the Initial Consideration were the only consideration payable or distributable in connection with such Deemed Liquidation Event; and (b) any Additional Consideration which becomes payable or distributable to the stockholders of the Corporation upon satisfaction of such contingencies shall be allocated among the holders of capital stock of the Corporation in accordance with Sections 2.1 and 2.2 after taking into account the previous payment or distribution of the Initial Consideration as part of the same transaction. For the purposes of this Section 2.3.4, consideration placed into escrow or retained as holdback to be available for satisfaction of indemnification or similar obligations in connection with such Deemed Liquidation Event shall be deemed to be Additional Consideration.

3. Voting.

3.1 General. On any matter presented to the stockholders of the Corporation for their action or consideration at any meeting of stockholders of the Corporation (or by written consent of stockholders in lieu of meeting), each holder of outstanding shares of Preferred Stock shall be entitled to cast the number of votes equal to the number of whole shares of Common Stock into which the shares of Preferred Stock held by such holder are convertible as of the record date for determining stockholders entitled to vote on such matter. Except as provided by law or by the other provisions of this Amended and Restated Certificate of Incorporation, holders of Preferred Stock shall vote together with the holders of Common Stock as a single class.

3.2 Election of Directors. The holders of record of the shares of Series A Preferred Stock, exclusively and as a separate class, shall be entitled to elect three (3) directors of the Corporation (the "**Series A Directors**"), the holders of record of the shares of Series B Preferred Stock, exclusively and as a separate class, shall be entitled to elect one (1) director of the Corporation (the "**Series B Director**"), and the holders of record of the shares of Common Stock, exclusively and as a separate class, shall be entitled to elect one (1) director of the Corporation. Any director elected as provided in the preceding sentence may be removed without cause by, and only by, the affirmative vote of the holders of the shares of the class or series of capital stock entitled to elect such director or directors, given either at a special meeting of such stockholders duly called for that purpose or pursuant to a written consent of stockholders. If the holders of shares of Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock or Common Stock, as the case may be, fail to elect a sufficient number of directors to fill all directorships for which they are entitled to elect directors, voting exclusively and as a separate class, pursuant to the first sentence of this Section 3.2, then any directorship not so filled shall remain vacant until such time as the holders of the Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock or Common Stock, as the case may be, elect a person to fill such directorship by vote or written consent in lieu of a meeting; and no such directorship may be filled by stockholders of the Corporation other than by the stockholders of the Corporation that are entitled to elect a person to fill such directorship, voting exclusively and as a separate class. The holders of record of the shares of Common Stock and of any other class or series of voting stock (including the Preferred Stock), exclusively and voting together as a single class, shall be entitled to elect the balance of the total number of directors of the Corporation. At any meeting held for the purpose of electing a director, the presence in person or by proxy of the holders of a majority of the outstanding shares of the class or series entitled to elect such director shall constitute a quorum for the purpose of electing such director. Except as otherwise provided in this Section 3.2, a vacancy in any directorship filled by the holders of any class or series shall be filled only by vote or written consent in lieu of a meeting of the holders of such class or series or by any remaining director or directors elected by the holders of such class or series pursuant to this Section 3.2. The rights of the holders of the Series A Preferred Stock under the first sentence of this Section 3.2 shall terminate on the first date following the Effective Time (as defined below) on which there are issued and outstanding fewer than 1,449,275 shares of Series A Preferred Stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination, or other similar recapitalization with respect to the Series A Preferred Stock occurring after the Effective Time), and the rights of the holders of the holders of the Series B Preferred Stock under the first sentence of this Section 3.2 shall terminate on the first date following the Effective Time on which there are issued and outstanding fewer than 1,376,811 shares of Series B Preferred Stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination, or other similar recapitalization with respect to the Series B Preferred Stock occurring after the Effective Time).

3.3 Preferred Stock Protective Provisions. At any time when at least 2,898,550 shares of Preferred Stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to any series of Preferred Stock occurring after the Effective Time) are outstanding, the Corporation shall not, either directly or indirectly by amendment, merger, consolidation or otherwise, do any of the following without (in addition to any other vote required by law or this Amended and Restated Certificate of Incorporation) the written consent or affirmative vote of the holders of at least a majority of the then-outstanding shares of Preferred Stock (on an as converted to Common Stock basis), given in writing or by vote at a meeting, consenting or voting (as the case may be) separately as a class, and any such act or transaction entered into without such consent or vote shall be null and void *ab initio*, and of no force or effect:

3.3.1 liquidate, dissolve or wind-up the business and affairs of the Corporation, effect any merger or consolidation or any other Deemed Liquidation Event, or consent to any of the foregoing;

3.3.2 increase or decrease the authorized number of shares of Common Stock or Preferred Stock, or any series thereof (other than decreases resulting from conversion of shares of Preferred Stock);

3.3.3 increase or decrease the authorized number of directors constituting the Board of Directors;

3.3.4 amend, alter or repeal any provision of the Certificate of Incorporation or Bylaws of the Corporation or take any action with respect to the Certificate of Incorporation or Bylaws of the Corporation that adversely affects the powers, preferences or rights of the Preferred Stock or any series thereof;

3.3.5 create, or authorize the creation of, any additional class or series of capital stock unless the same ranks junior to the Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock with respect to the distribution of assets on the liquidation, dissolution or winding up of the Corporation, the payment of dividends and rights of redemption, or increase the authorized number of shares of Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock or increase the authorized number of shares of any additional class or series of capital stock unless the same ranks junior to the Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock with respect to the distribution of assets on the liquidation, dissolution or winding up of the Corporation, the payment of dividends and rights of redemption;

3.3.6 (i) reclassify, alter or amend any existing security of the Corporation that is *pari passu* with the Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock in respect of the distribution of assets on the liquidation, dissolution or winding up of the Corporation, the payment of dividends or rights of redemption, if such reclassification, alteration or amendment would render such other security senior to such series of Preferred Stock in respect of any such right, preference, or privilege or (ii) reclassify, alter or amend any existing security of the Corporation that is junior to the Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock in respect of the distribution of assets on the liquidation, dissolution or winding up of the Corporation, the payment of dividends or rights of redemption, if such reclassification, alteration or amendment would render such other security senior to or *pari passu* with such series of Preferred Stock in respect of any such right, preference or privilege;

3.3.7 purchase or redeem (or permit any subsidiary to purchase or redeem) or pay or declare any dividend or make any distribution on, any shares of capital stock of the Corporation other than (i) redemptions of or dividends or distributions on the Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock as expressly authorized herein, (ii) dividends or other distributions payable on the Common Stock solely in the form of additional shares of Common Stock and (iii) repurchases of stock from former employees, officers, directors, consultants or other persons who performed services for the Corporation or any subsidiary in connection with the cessation of such employment or service at the lower of the original purchase price or the then-current fair market value thereof;

3.3.8 (i) create, or authorize the creation of, or issue, or authorize the issuance of any debt security or otherwise incur indebtedness, or permit any subsidiary to take any such action with respect to any debt security or other indebtedness, if the aggregate indebtedness of the Corporation and its subsidiaries for borrowed money following such actions would exceed $1,000,000 or (ii) enter into any agreement to make any loan or guarantee in excess of $1,000,000;

3.3.9 create, or hold capital stock in, any subsidiary that is not wholly owned (either directly or through one or more other subsidiaries) by the Corporation, or sell, transfer or otherwise dispose of any capital stock of any direct or indirect subsidiary of the Corporation, or permit any direct or indirect subsidiary to sell, lease, transfer, exclusively license or otherwise dispose (in a single transaction or series of related transactions) of all or substantially all of the assets of such subsidiary; or

3.3.10 permit any subsidiary to take any of the forgoing actions.

3.4 Series C Preferred Stock Protective Provisions. At any time when at least 362,318 shares of Series C Preferred Stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series C Preferred Stock occurring after the Effective Time) are outstanding, the Corporation shall not, either directly or indirectly by amendment, merger, consolidation or otherwise, do any of the following without (in addition to any other vote required by law or this Amended and Restated Certificate of Incorporation) the written consent or affirmative vote of the holders of at least 66 2/3% of the then-outstanding shares of Series C Preferred Stock, given in writing or by vote at a meeting, consenting or voting (as the case may be) separately as a class (the "**Requisite Series C Holders**"), and any such act or transaction entered into without such consent or vote shall be null and void *ab initio*, and of no force or effect:

3.4.1 liquidate, dissolve or wind-up the business and affairs of the Corporation, effect any merger or consolidation or any other Deemed Liquidation Event, or consent to any of the foregoing, unless the holders of the Series C Preferred Stock shall receive as consideration payable on such Series C Preferred Stock in such liquidation, dissolution, wind-up, merger, consolidation or other Deemed Liquidation Event an amount per share (inclusive of both Initial Consideration and Additional Consideration payable with respect thereto) equal to or greater than the Series C Liquidation Preference Amount;

3.4.2 amend, alter or repeal any provision of the Certificate of Incorporation or Bylaws of the Corporation or take any action with respect to the Certificate of Incorporation or Bylaws of the Corporation that adversely affects the powers, preferences or rights of the Series C Preferred Stock;

3.4.3 increase or decrease the authorized number of shares of Series C Preferred Stock (other than decreases resulting from conversion of shares of Series C Preferred Stock);

3.4.4 (i) reclassify, alter or amend any existing security of the Corporation that is *pari passu* with the Series C Preferred Stock in respect of the distribution of assets on the liquidation, dissolution or winding up of the Corporation, the payment of dividends or rights of redemption, if such reclassification, alteration or amendment would render such other

security senior to such series of Preferred Stock in respect of any such right, preference, or privilege or (ii) reclassify, alter or amend any existing security of the Corporation that is junior to the Series C Preferred Stock in respect of the distribution of assets on the liquidation, dissolution or winding up of the Corporation, the payment of dividends or rights of redemption, if such reclassification, alteration or amendment would render such other security senior to or *pari passu* with of the Series C Preferred Stock in respect of any such right, preference or privilege; or

3.4.5 purchase or redeem (or permit any subsidiary to purchase or redeem) or pay or declare any dividend or make any distribution on, any shares of capital stock of the Corporation other than (i) redemptions of or dividends or distributions on the Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock as expressly authorized herein, (ii) dividends or other distributions payable on the Common Stock solely in the form of additional shares of Common Stock and (iii) repurchases of stock from former employees, officers, directors, consultants or other persons who performed services for the Corporation or any subsidiary in connection with the cessation of such employment or service at the lower of the original purchase price or the then-current fair market value thereof.

3.5 Series B Preferred Stock Protective Provisions. At any time when at least 1,376,811 shares of Series B Preferred Stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series B Preferred Stock occurring after the Effective Time) are outstanding, the Corporation shall not, either directly or indirectly by amendment, merger, consolidation or otherwise, do any of the following without (in addition to any other vote required by law or this Amended and Restated Certificate of Incorporation) the written consent or affirmative vote of the holders of at least a majority of the then-outstanding shares of Series B Preferred Stock, given in writing or by vote at a meeting, consenting or voting (as the case may be) separately as a class (the "**Requisite Series B Holders**"), and any such act or transaction entered into without such consent or vote shall be null and void *ab initio*, and of no force or effect:

3.5.1 liquidate, dissolve or wind-up the business and affairs of the Corporation, effect any merger or consolidation or any other Deemed Liquidation Event, or consent to any of the foregoing, unless the holders of the Series B Preferred Stock shall receive as consideration payable on such Series B Preferred Stock in such liquidation, dissolution, wind-up, merger, consolidation or other Deemed Liquidation Event an amount per share (inclusive of both Initial Consideration and Additional Consideration payable with respect thereto) equal to or greater than the Series B Liquidation Preference Amount;

3.5.2 amend, alter or repeal any provision of the Certificate of Incorporation or Bylaws of the Corporation or take any action with respect to the Certificate of Incorporation or Bylaws of the Corporation that adversely affects the powers, preferences or rights of the Series B Preferred Stock;

3.5.3 (i) reclassify, alter or amend any existing security of the Corporation that is *pari passu* with the Series B Preferred Stock in respect of the distribution of assets on the liquidation, dissolution or winding up of the Corporation, the payment of dividends or rights of redemption, if such reclassification, alteration or amendment would render such other security senior to such series of Preferred Stock in respect of any such right, preference, or privilege or (ii) reclassify, alter or amend any existing security of the Corporation that is junior to

the Series B Preferred Stock in respect of the distribution of assets on the liquidation, dissolution or winding up of the Corporation, the payment of dividends or rights of redemption, if such reclassification, alteration or amendment would render such other security senior to or *pari passu* with of the Series B Preferred Stock in respect of any such right, preference or privilege; or

3.5.4 purchase or redeem (or permit any subsidiary to purchase or redeem) or pay or declare any dividend or make any distribution on, any shares of capital stock of the Corporation other than (i) redemptions of or dividends or distributions on the Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock as expressly authorized herein, (ii) dividends or other distributions payable on the Common Stock solely in the form of additional shares of Common Stock and (iii) repurchases of stock from former employees, officers, directors, consultants or other persons who performed services for the Corporation or any subsidiary in connection with the cessation of such employment or service at the lower of the original purchase price or the then-current fair market value thereof;

provided, however, that the consent or vote (as the case may be) of the Requisite Series B Holders shall not be required pursuant to this Section 3.5 for any act or transaction approved by the Board, which includes the affirmative consent or vote of the then-serving Series B Director.

4. Optional Conversion. The holders of the Preferred Stock shall have conversion rights as follows (the "**Conversion Rights**"):

4.1 Right to Convert.

4.1.1 Conversion Ratio. Each share of Preferred Stock shall be convertible, at the option of the holder thereof, at any time and from time to time, and without the payment of additional consideration by the holder thereof, into such number of fully paid and non-assessable shares of Common Stock as is determined by dividing the Original Issue Price for the applicable series of Preferred Stock by the Conversion Price (as defined below) in effect for such series of Preferred Stock at the time of conversion. As of the Effective Time, the Conversion Price for the Series A Preferred Stock is $6.90 (the "**Series A Conversion Price**"), the Conversion Price for the Series B Preferred Stock is $10.76 (the "**Series B Conversion Price**") and the Conversion Price for the Series C Preferred Stock is $13.04 (the "**Series C Conversion Price**"). The term "**Conversion Price**" means the Series A Conversion Price, the Series B Conversion Price and Series C Conversion Price, individually or collectively, as applicable. The initial Conversion Price for the Series A Preferred Stock, the Series B Preferred Stock and the Series C Preferred Stock, and the rate at which shares of such series of Preferred Stock may be converted into shares of Common Stock, shall be subject to adjustment as provided below.

4.1.2 Termination of Conversion Rights. In the event of a liquidation, dissolution or winding up of the Corporation or a Deemed Liquidation Event, the Conversion Rights shall terminate at the close of business on the last full day preceding the date fixed for the payment of any such amounts distributable on such event to the holders of Preferred Stock.

4.2 Fractional Shares. No fractional shares of Common Stock shall be issued upon conversion of the Preferred Stock. In lieu of any fractional shares to which the holder would otherwise be entitled, the Corporation shall pay cash equal to such fraction multiplied by the fair market value of a share of Common Stock as determined in good faith by the Board of

Directors. Whether or not fractional shares would be issuable upon such conversion shall be determined on the basis of the total number of shares of Preferred Stock the holder is at the time converting into Common Stock and the aggregate number of shares of Common Stock issuable upon such conversion.

4.3 Mechanics of Conversion.

4.3.1 Notice of Conversion. In order for a holder of Preferred Stock to voluntarily convert shares of Preferred Stock into shares of Common Stock, such holder shall (a) provide written notice to the Corporation's transfer agent at the office of the transfer agent for the Preferred Stock (or at the principal office of the Corporation if the Corporation serves as its own transfer agent) that such holder elects to convert all or any number of such holder's shares of Preferred Stock and, if applicable, any event on which such conversion is contingent and (b), if such holder's shares are certificated, surrender the certificate or certificates for such shares of Preferred Stock (or, if such registered holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate), at the office of the transfer agent for the Preferred Stock (or at the principal office of the Corporation if the Corporation serves as its own transfer agent). Such notice shall state such holder's name or the names of the nominees in which such holder wishes the shares of Common Stock to be issued. If required by the Corporation, any certificates surrendered for conversion shall be endorsed or accompanied by a written instrument or instruments of transfer, in form satisfactory to the Corporation, duly executed by the registered holder or his, her or its attorney duly authorized in writing. The close of business on the date of receipt by the transfer agent (or by the Corporation if the Corporation serves as its own transfer agent) of such notice and, if applicable, certificates (or lost certificate affidavit and agreement) shall be the time of conversion (the "**Conversion Time**"), and the shares of Common Stock issuable upon conversion of the specified shares shall be deemed to be outstanding of record as of such date. The Corporation shall, as soon as practicable after the Conversion Time (i) issue and deliver to such holder of Preferred Stock, or to his, her or its nominees, a certificate or certificates for the number of full shares of Common Stock issuable upon such conversion in accordance with the provisions hereof and a certificate for the number (if any) of the shares of Preferred Stock represented by the surrendered certificate that were not converted into Common Stock, (ii) pay in cash such amount as provided in Section 4.2 in lieu of any fraction of a share of Common Stock otherwise issuable upon such conversion and (iii) pay all declared but unpaid dividends on the shares of Preferred Stock converted.

4.3.2 Reservation of Shares. The Corporation shall, at all times when shares of Preferred Stock are outstanding, reserve and keep available out of its authorized but unissued capital stock, for the purpose of effecting the conversion of the Preferred Stock, such number of its duly authorized shares of Common Stock as shall from time to time be sufficient to effect the conversion of all outstanding 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 shall take such corporate action as may be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purposes, including, without limitation, engaging in best efforts to obtain the requisite stockholder approval of any necessary amendment to the Certificate of Incorporation. Before taking any action which would cause an adjustment reducing the

Conversion Price for any series of Preferred Stock below the then par value of the shares of Common Stock issuable upon conversion of such series of Preferred Stock, the Corporation will take any corporate action which may, in the opinion of its counsel, be necessary in order that the Corporation may validly and legally issue fully paid and non-assessable shares of Common Stock at such adjusted Conversion Price.

4.3.3 Effect of Conversion. All shares of Preferred Stock which shall have been surrendered for conversion as herein provided shall no longer be deemed to be outstanding and all rights with respect to such shares shall immediately cease and terminate at the Conversion Time, except only the right of the holders thereof to receive shares of Common Stock in exchange therefor, to receive payment in lieu of any fraction of a share otherwise issuable upon such conversion as provided in Section 4.2 and to receive payment of any dividends declared but unpaid thereon. Any shares of Preferred Stock so converted shall be retired and cancelled and may not be reissued as shares of such series, and the Corporation may thereafter take such appropriate action (without the need for stockholder action) as may be necessary to reduce the authorized number of shares of Preferred Stock accordingly.

4.3.4 No Further Adjustment. Upon any such conversion of shares of Preferred Stock, no adjustment to the Conversion Price for the applicable series of Preferred Stock shall be made for any declared but unpaid dividends on such series of Preferred Stock surrendered for conversion or on the Common Stock delivered upon conversion.

4.3.5 Taxes. The Corporation shall pay any and all issue and other similar taxes that may be payable in respect of any issuance or delivery of shares of 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.

4.4 Adjustments to Conversion Price for Diluting Issues.

4.4.1 Special Definitions. For purposes of this Article Fifth, the following definitions shall apply:

(a) "**Option**" means rights, options or warrants to subscribe for, purchase or otherwise acquire Common Stock or Convertible Securities.

(b) "**Convertible Securities**" means any evidences of indebtedness, shares or other securities directly or indirectly convertible into or exchangeable for Common Stock, but excluding Options.

(c) "**Additional Shares of Common Stock**" means all shares of Common Stock issued (or, pursuant to Section 4.4.3 below, deemed to be issued) by the Corporation after the Effective Time, other than (1) the following shares of Common Stock and (2) shares of Common Stock deemed issued pursuant to the following Options and Convertible Securities (clauses (1) and (2), collectively, "**Exempted Securities**"):

(i) shares of Common Stock, Options or Convertible Securities issued as a dividend or distribution on any series of Preferred Stock;

(ii) shares of Common Stock, Options or Convertible Securities issued by reason of a dividend, stock split, split-up or other distribution on shares of Common Stock for which an adjustment to the Series A Conversion Price, Series B Conversion Price or Series C Conversion Price, as the case may be, is made pursuant to Section 4.5, 4.6, 4.7 or 4.8;

(iii) shares of Common Stock or Options issued to employees or directors of, or consultants or advisors to, the Corporation or any of its subsidiaries pursuant to a plan, agreement or arrangement approved by the Board of Directors;

(iv) shares of Common Stock or Convertible Securities actually issued upon the exercise of Options or shares of Common Stock actually issued upon the conversion or exchange of Convertible Securities, in each case provided such issuance is pursuant to the terms of such Option or Convertible Security;

(v) shares of Common Stock, Options or Convertible Securities issued to banks, equipment lessors or other financial institutions, or to real property lessors, pursuant to a debt financing, equipment leasing or real property leasing transaction approved by the Board of Directors;

(vi) shares of Common Stock, Options or Convertible Securities issued pursuant to the acquisition of another corporation by the Corporation by merger, purchase of substantially all of the assets or other reorganization or to a joint venture agreement, provided that such issuances are approved by the Board of Directors;

(vii) shares of Common Stock, Options or Convertible Securities issued in connection with sponsored research, collaboration, technology license, development, marketing or other similar agreements or strategic partnerships approved by the Board of Directors; or

(viii) shares of Common Stock issued or issuable in a registered public offering under the Securities Act in connection with which all outstanding shares of Preferred Stock are automatically converted into Common Stock.

4.4.2 No Adjustment of Conversion Price. No adjustment in the Series A Conversion Price shall be made as the result of the issuance or deemed issuance of Additional Shares of Common Stock if the Corporation receives written notice from the holders of at least a majority of the then outstanding shares of Series A Preferred Stock agreeing that no such adjustment shall be made as the result of the issuance or deemed issuance of such Additional Shares of Common Stock. No adjustment in the Series B Conversion Price shall be made as the result of the issuance or deemed issuance of Additional Shares of Common Stock if the Corporation receives written notice from the holders of at least sixty-six and two-thirds percent (66 2/3%) of the then outstanding shares of Series B Preferred Stock agreeing that no such adjustment shall be made as the result of the issuance or deemed issuance of such Additional Shares of Common Stock. No adjustment in the Series C Conversion Price shall be made as the result of the issuance or deemed issuance of Additional Shares of Common Stock if the Corporation receives written notice from the holders of at least a majority of the then outstanding shares of Series C Preferred Stock agreeing that no such adjustment shall be made as the result of the issuance or deemed issuance of such Additional Shares of Common Stock.

4.4.3 Deemed Issue of Additional Shares of Common Stock.

(a) If the Corporation at any time or from time to time after the Effective Time shall issue any Options or Convertible Securities (excluding Options or Convertible Securities which are themselves Exempted Securities) or shall fix a record date for the determination of holders of any class of securities entitled to receive any such Options or Convertible Securities, then the maximum number of shares of Common Stock (as set forth in the instrument relating thereto, assuming the satisfaction of any conditions to exercisability, convertibility or exchangeability but without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or, in the case of Convertible Securities and Options therefor, the conversion or exchange of such Convertible Securities, shall be deemed to be Additional Shares of Common Stock issued as of the time of such issue or, in case such a record date shall have been fixed, as of the close of business on such record date.

(b) If the terms of any Option or Convertible Security, the issuance of which resulted in an adjustment to the Series A Conversion Price, Series B Conversion Price or Series C Conversion Price pursuant to the terms of Section 4.4.4, are revised as a result of an amendment to such terms or any other adjustment pursuant to the provisions of such Option or Convertible Security (but excluding automatic adjustments to such terms pursuant to anti-dilution or similar provisions of such Option or Convertible Security) to provide for either (1) any increase or decrease in the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any such Option or Convertible Security or (2) any increase or decrease in the consideration payable to the Corporation upon such exercise, conversion and/or exchange, then, effective upon such increase or decrease becoming effective, the Conversion Price for such series of Preferred Stock computed upon the original issue of such Option or Convertible Security (or upon the occurrence of a record date with respect thereto) shall be readjusted to such Conversion Price as would have obtained had such revised terms been in effect upon the original date of issuance of such Option or Convertible Security. Notwithstanding the foregoing, no readjustment pursuant to this clause (b) shall have the effect of increasing the Conversion Price for such series of Preferred Stock to an amount which exceeds the lower of (i) the applicable Conversion Price in effect immediately prior to the original adjustment made as a result of the issuance of such Option or Convertible Security, or (ii) the Conversion Price that would have resulted from any issuances of Additional Shares of Common Stock (other than deemed issuances of Additional Shares of Common Stock as a result of the issuance of such Option or Convertible Security) between the original adjustment date and such readjustment date.

(c) If the terms of any Option or Convertible Security (excluding Options or Convertible Securities which are themselves Exempted Securities), the issuance of which did not result in an adjustment to the Conversion Price of any series of Preferred Stock pursuant to the terms of Section 4.4.4 (either because the consideration per share (determined pursuant to Section 4.4.5) of the Additional Shares of Common Stock subject thereto was equal to or greater than the applicable Conversion Price then in effect, or because such Option or Convertible Security was issued before the Effective Time), are revised after the Effective Time

as a result of an amendment to such terms or any other adjustment pursuant to the provisions of such Option or Convertible Security (but excluding automatic adjustments to such terms pursuant to anti-dilution or similar provisions of such Option or Convertible Security) to provide for either (1) any increase in the number of shares of Common Stock issuable upon the exercise, conversion or exchange of any such Option or Convertible Security or (2) any decrease in the consideration payable to the Corporation upon such exercise, conversion or exchange, then such Option or Convertible Security, as so amended or adjusted, and the Additional Shares of Common Stock subject thereto (determined in the manner provided in Section 4.4.3(a) shall be deemed to have been issued effective upon such increase or decrease becoming effective.

(d) Upon the expiration or termination of any unexercised Option or unconverted or unexchanged Convertible Security (or portion thereof) which resulted (either upon its original issuance or upon a revision of its terms) in an adjustment to the Conversion Price of any series of Preferred Stock pursuant to the terms of Section 4.4.4, such Conversion Price shall be readjusted to the Conversion Price as would have obtained had such Option or Convertible Security (or portion thereof) never been issued.

(e) If the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any Option or Convertible Security, or the consideration payable to the Corporation upon such exercise, conversion and/or exchange, is calculable at the time such Option or Convertible Security is issued or amended but is subject to adjustment based upon subsequent events, any adjustment to the Conversion Price of any series of Preferred Stock provided for in this Section 4.4.3 shall be effected at the time of such issuance or amendment based on such number of shares or amount of consideration without regard to any provisions for subsequent adjustments (and any subsequent adjustments shall be treated as provided in clauses (b) and (c) of this Section 4.4.3). If the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any Option or Convertible Security, or the consideration payable to the Corporation upon such exercise, conversion and/or exchange, cannot be calculated at all at the time such Option or Convertible Security is issued or amended, any adjustment to the Conversion Price of any series of Preferred Stock that would result under the terms of this Section 4.4.3 at the time of such issuance or amendment shall instead be effected at the time such number of shares and/or amount of consideration is first calculable (even if subject to subsequent adjustments), assuming for purposes of calculating such adjustment to such Conversion Price that such issuance or amendment took place at the time such calculation can first be made.

4.4.4 Adjustment of Conversion Price Upon Issuance of Additional Shares of Common Stock. In the event the Corporation shall at any time after the Effective Time issue Additional Shares of Common Stock (including Additional Shares of Common Stock deemed to be issued pursuant to Section 4.4.3), without consideration or for a consideration per share less than the Conversion Price for any series of Preferred Stock in effect immediately prior to such issue, then the Conversion Price for such series of Preferred Stock shall be reduced, concurrently with such issue, to a price (calculated to the nearest cent) determined in accordance with the following formula:

$$CP_2 = CP_1 * (A + B) \div (A + C).$$

For purposes of the foregoing formula, the following definitions shall apply:

(a) "CP_2" means the applicable Conversion Price for such series of Preferred Stock in effect immediately after such issue of Additional Shares of Common Stock;

(b) "CP_1" means the applicable Conversion Price for such series of Preferred Stock in effect immediately prior to such issue of Additional Shares of Common Stock;

(c) "A" means the number of shares of Common Stock outstanding immediately prior to such issue of Additional Shares of Common Stock (treating for this purpose as outstanding all shares of Common Stock issuable upon exercise of Options outstanding immediately prior to such issue or upon conversion or exchange of Convertible Securities (including the Preferred Stock) outstanding (assuming exercise of any outstanding Options therefor) immediately prior to such issue);

(d) "B" means the number of shares of Common Stock that would have been issued if such Additional Shares of Common Stock had been issued at a price per share equal to CP_1 (determined by dividing the aggregate consideration received by the Corporation in respect of such issue by CP_1); and

(e) "C" means the number of such Additional Shares of Common Stock issued in such transaction.

4.4.5 Determination of Consideration. For purposes of this Section 4.4, the consideration received by the Corporation for the issue of any Additional Shares of Common Stock shall be computed as follows:

(a) Cash and Property: Such consideration shall:

(i) insofar as it consists of cash, be computed at the aggregate amount of cash received by the Corporation, excluding amounts paid or payable for accrued interest;

(ii) insofar as it consists of property other than cash, be computed at the fair market value thereof at the time of such issue, as determined in good faith by the Board of Directors; and

(iii) in the event Additional Shares of Common Stock are issued together with other shares or securities or other assets of the Corporation for consideration which covers both, be the proportion of such consideration so received, computed as provided in clauses (i) and (ii) above, as determined in good faith by the Board of Directors.

(b) Options and Convertible Securities. The consideration per share received by the Corporation for Additional Shares of Common Stock deemed to have been issued pursuant to Section 4.4.3, relating to Options and Convertible Securities, shall be determined by dividing:

(i) The total amount, if any, received or receivable by the Corporation as consideration for the issue of such Options or Convertible Securities, plus the minimum aggregate amount of additional consideration (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such consideration) payable to the Corporation upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities, by

(ii) the maximum number of shares of Common Stock (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities.

4.4.6 Multiple Closing Dates. In the event the Corporation shall issue on more than one date Additional Shares of Common Stock that are a part of one transaction or a series of related transactions and that would result in an adjustment to the Conversion Price for any series of Preferred Stock pursuant to the terms of Section 4.4.4, and such issuance dates occur within a period of no more than ninety (90) days from the first such issuance to the final such issuance, then, upon the final such issuance, the Conversion Price for such series of Preferred Stock shall be readjusted to give effect to all such issuances as if they occurred on the date of the first such issuance (and without giving effect to any additional adjustments as a result of any such subsequent issuances within such period).

4.5 Adjustment for Stock Splits and Combinations. If the Corporation shall at any time or from time to time after the Effective Time effect a subdivision of the outstanding Common Stock, the Conversion Price in effect for each series of Preferred Stock immediately before such subdivision shall be proportionately decreased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be increased in proportion to such increase in the aggregate number of shares of Common Stock outstanding. If the Corporation shall at any time or from time to time after the Effective Time combine the outstanding shares of Common Stock, the Conversion Price in effect for each series of Preferred Stock immediately before the combination shall be proportionately increased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be decreased in proportion to such decrease in the aggregate number of shares of Common Stock outstanding. Any adjustment under this section shall become effective at the close of business on the date the subdivision or combination becomes effective.

4.6 Adjustment for Certain Dividends and Distributions. In the event the Corporation at any time or from time to time after the Effective Time shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable on the Common Stock in additional shares of Common Stock, then and in each such event the Conversion Price in effect for each series of Preferred Stock immediately before such event shall be decreased as of the time of such issuance or, in the event such a record date shall have been fixed, as of the close of business on such record date, by multiplying the applicable Conversion Price then in effect by a fraction:

(1) the numerator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date, and

(2) the denominator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date plus the number of shares of Common Stock issuable in payment of such dividend or distribution.

Notwithstanding the foregoing (a) if such record date shall have been fixed and such dividend is not fully paid or if such distribution is not fully made on the date fixed therefor, the applicable Conversion Price shall be recomputed accordingly as of the close of business on such record date and thereafter such Conversion Price shall be adjusted pursuant to this section as of the time of actual payment of such dividends or distributions; (b) no such adjustment shall be made to the Series A Conversion Price if the holders of Series A Preferred Stock simultaneously receive a dividend or other distribution of shares of Common Stock in a number equal to the number of shares of Common Stock as they would have received if all outstanding shares of Series A Preferred Stock had been converted into Common Stock on the date of such event; (c) no such adjustment shall be made to the Series B Conversion Price if the holders of Series B Preferred Stock simultaneously receive a dividend or other distribution of shares of Common Stock in a number equal to the number of shares of Common Stock as they would have received if all outstanding shares of Series B Preferred Stock had been converted into Common Stock on the date of such event; and (d) no such adjustment shall be made to the Series C Conversion Price if the holders of Series C Preferred Stock simultaneously receive a dividend or other distribution of shares of Common Stock in a number equal to the number of shares of Common Stock as they would have received if all outstanding shares of Series C Preferred Stock had been converted into Common Stock on the date of such event.

4.7 Adjustments for Other Dividends and Distributions. In the event the Corporation at any time or from time to time after the Effective Time shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable in securities of the Corporation (other than a distribution of shares of Common Stock in respect of outstanding shares of Common Stock) or in other property and the provisions of Section 1 do not apply to such dividend or distribution, then and in each such event the holders of Preferred Stock shall receive, simultaneously with the distribution to the holders of Common Stock, a dividend or other distribution of such securities or other property in an amount equal to the amount of such securities or other property as they would have received if all outstanding shares of Preferred Stock had been converted into Common Stock on the date of such event.

4.8 Adjustment for Merger or Reorganization, etc. Subject to the provisions of Section 2.3, if there shall occur any reorganization, recapitalization, reclassification, consolidation or merger involving the Corporation in which the Common Stock (but not the Preferred Stock or any series thereof) is converted into or exchanged for securities, cash or other property (other than a transaction covered by Sections 4.4, 4.6 or 4.7), then, following any such reorganization, recapitalization, reclassification, consolidation or merger, each share of Preferred Stock not so converted or exchanged shall thereafter be convertible, in lieu of the Common Stock into which it was convertible prior to such event, into the kind and amount of securities, cash or

other property which a holder of the number of shares of Common Stock of the Corporation issuable upon conversion of one share of the applicable series of Preferred Stock immediately prior to such reorganization, recapitalization, reclassification, consolidation or merger would have been entitled to receive pursuant to such transaction; and, in such case, appropriate adjustment (as determined in good faith by the Board of Directors) shall be made in the application of the provisions in this Section 4 with respect to the rights and interests thereafter of the holders of such Preferred Stock, to the end that the provisions set forth in this Section 4 (including provisions with respect to changes in and other adjustments of the applicable Conversion Price) shall thereafter be applicable, as nearly as reasonably may be, in relation to any securities or other property thereafter deliverable upon the conversion of such Preferred Stock. For clarity, nothing in this Section 4.8 shall be construed as preventing the holders of Preferred Stock from seeking any appraisal rights to which they are otherwise entitled under applicable law in connection with a merger triggering an adjustment hereunder, nor shall this Section 4.8 be deemed conclusive evidence of the fair value of the shares of Preferred Stock in any such appraisal proceeding.

4.9 Certificate as to Adjustments. Upon the occurrence of each adjustment or readjustment of the Conversion Price of any series of Preferred Stock pursuant to this Section 4, the Corporation at its expense shall, as promptly as reasonably practicable but in any event not later than thirty (30) days thereafter, compute such adjustment or readjustment in accordance with the terms hereof and furnish to each holder of such series of Preferred Stock a certificate setting forth such adjustment or readjustment (including the kind and amount of securities, cash or other property into which the applicable series of Preferred Stock is convertible) and showing in detail the facts upon which such adjustment or readjustment is based. The Corporation shall, as promptly as reasonably practicable after the written request at any time of any holder of any series of Preferred Stock (but in any event not later than ten (10) days thereafter), furnish or cause to be furnished to such holder a certificate setting forth (i) the Conversion Price then in effect for such series of Preferred Stock, and (ii) the number of shares of Common Stock and the amount, if any, of other securities, cash or property which then would be received upon the conversion of such Preferred Stock.

4.10 Notice of Record Date. In the event:

(a) the Corporation shall take a record of the holders of its Common Stock (or other capital stock or securities at the time issuable upon conversion of the Preferred Stock) for the purpose of entitling or enabling them to receive any dividend or other distribution, or to receive any right to subscribe for or purchase any shares of capital stock of any class or any other securities, or to receive any other security; or

(b) of any capital reorganization of the Corporation, any reclassification of the Common Stock of the Corporation, or any Deemed Liquidation Event; or

(c) of the voluntary or involuntary dissolution, liquidation or winding-up of the Corporation,

then, and in each such case, the Corporation will send or cause to be sent to the holders of the Preferred Stock a notice specifying, as the case may be, (i) the record date for such dividend, distribution or right, and the amount and character of such dividend, distribution or right, or (ii) the effective date on which such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up is proposed to take place, and the time, if any is to be fixed,

as of which the holders of record of Common Stock (or such other capital stock or securities at the time issuable upon the conversion of the Preferred Stock) shall be entitled to exchange their shares of Common Stock (or such other capital stock or securities) for securities or other property deliverable upon such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up, and the amount per share and character of such exchange applicable to the Preferred Stock and the Common Stock. Such notice shall be sent at least ten (10) days prior to the record date or effective date for the event specified in such notice.

5. Mandatory Conversion.

5.1 Trigger Events. Either (a) immediately prior to the closing of the sale of shares of Common Stock to the public at a price of at least $15.66 per share (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Common Stock occurring after the Effective Time), in a firm-commitment underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended (the "**Securities Act**"), resulting in at least $50,000,000 of proceeds, net of the underwriting discount and commissions, to the Corporation or (b) subject to the provisions of Sections 3.4.1 and 3.5.1 hereof, upon the date and time, or the occurrence of an event, specified by vote or written consent of the holders of a majority of the outstanding shares of Preferred Stock (on an as-converted to Common Stock basis), voting together as a single class (the time of such closing or the date and time specified or the time of the event specified in such vote or written consent is referred to herein as the "**Mandatory Conversion Time**"), then (i) all outstanding shares of Preferred Stock shall automatically be converted into shares of Common Stock, at the then effective conversion rate as calculated pursuant to Section 4.1.1 and (ii) such shares may not be reissued by the Corporation.

5.2 Procedural Requirements. All holders of record of shares of Preferred Stock shall be sent written notice of the Mandatory Conversion Time and the place designated for mandatory conversion of all such shares of Preferred Stock pursuant to this Section 5. Such notice need not be sent in advance of the occurrence of the Mandatory Conversion Time. Upon receipt of such notice, each holder of shares of Preferred Stock in certificated form shall surrender his, her or its certificate or certificates for all such shares (or, if such holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate) to the Corporation at the place designated in such notice. If so required by the Corporation, any certificates surrendered for conversion shall be endorsed or accompanied by written instrument or instruments of transfer, in form satisfactory to the Corporation, duly executed by the registered holder or by his, her or its attorney duly authorized in writing. All rights with respect to the Preferred Stock converted pursuant to Section 5, including the rights, if any, to receive notices and vote (other than as a holder of Common Stock), will terminate at the Mandatory Conversion Time (notwithstanding the failure of the holder or holders thereof to surrender any certificates at or prior to such time), except only the rights of the holders thereof, upon surrender of any certificate or certificates of such holders (or lost certificate affidavit and agreement) therefor, to receive the items provided for in the next sentence of this Section 5.4. As soon as practicable after the Mandatory Conversion Time, and, if applicable, the surrender of any certificate or certificates (or lost certificate affidavit and agreement) for Preferred Stock, the Corporation shall (a) issue and deliver to such holder, or to his, her or its nominees, a certificate

or certificates for the number of full shares of Common Stock issuable on such conversion in accordance with the provisions hereof and (b) pay cash as provided in Section 4.2 in lieu of any fraction of a share of Common Stock otherwise issuable upon such conversion and the payment of any declared but unpaid dividends on the shares of Preferred Stock converted. Such converted Preferred Stock shall be retired and cancelled and may not be reissued as shares of such series, and the Corporation may thereafter take such appropriate action (without the need for stockholder action) as may be necessary to reduce the authorized number of shares of Preferred Stock accordingly.

6. Redemption. Other than as set forth in Section 2.3.2(b), the Preferred Stock is not redeemable.

7. Redeemed or Otherwise Acquired Shares. Any shares of Preferred Stock that are redeemed or otherwise acquired by the Corporation or any of its subsidiaries shall be automatically and immediately cancelled and retired and shall not be reissued, sold or transferred. Neither the Corporation nor any of its subsidiaries may exercise any voting or other rights granted to the holders of Preferred Stock following redemption.

8. Waiver. Except as otherwise set forth herein, any of the rights, powers, preferences and other terms of the Preferred Stock set forth herein may be waived on behalf of all holders of Preferred Stock by the affirmative written consent or vote of the holders of at least a majority of the shares of Preferred Stock then outstanding; provided, however, that this Section 8 shall not be construed to permit the Corporation or holders of Preferred Stock to take, without the approval of the Requisite Series C Holders, any action that would otherwise require the approval of the Requisite Series C Holders hereunder.

9. Notices. Any notice required or permitted by the provisions of this Article Fifth to be given to a holder of shares of Preferred Stock shall be mailed, postage prepaid, to the post office address last shown on the records of the Corporation, or given by electronic communication in compliance with the provisions of the General Corporation Law, and shall be deemed sent upon such mailing or electronic transmission.

SIXTH: Subject to any additional vote required by the Certificate of Incorporation or Bylaws, in furtherance and not in limitation of the powers conferred by statute, the Board of Directors is expressly authorized to make, repeal, alter, amend and rescind any or all of the Bylaws of the Corporation.

SEVENTH: Subject to any additional vote required by the Certificate of Incorporation, the number of directors of the Corporation shall be determined in the manner set forth in the Bylaws of the Corporation.

EIGHTH: Elections of directors need not be by written ballot unless the Bylaws of the Corporation shall so provide.

NINTH: Meetings of stockholders may be held within or without the State of Delaware, as the Bylaws of the Corporation may provide. The books of the Corporation may be kept outside the State of Delaware at such place or places as may be designated from time to time by the Board of Directors or in the Bylaws of the Corporation.

TENTH: To the fullest extent permitted by law, a director of the Corporation shall not be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director. If the General Corporation Law or any other law of the State of Delaware is amended after approval by the stockholders of this Article Tenth to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the Corporation shall be eliminated or limited to the fullest extent permitted by the General Corporation Law as so amended.

Any repeal or modification of the foregoing provisions of this Article Tenth by the stockholders of the Corporation shall not adversely affect any right or protection of a director of the Corporation existing at the time of, or increase the liability of any director of the Corporation with respect to any acts or omissions of such director occurring prior to, such repeal or modification.

ELEVENTH: To the fullest extent permitted by applicable law, the Corporation is authorized to provide indemnification of (and advancement of expenses to) directors, officers and agents of the Corporation (and any other persons to which General Corporation Law permits the Corporation to provide indemnification) through Bylaw provisions, agreements with such agents or other persons, vote of stockholders or disinterested directors or otherwise, in excess of the indemnification and advancement otherwise permitted by Section 145 of the General Corporation Law.

Any amendment, repeal or modification of the foregoing provisions of this Article Eleventh shall not adversely affect any right or protection of any director, officer or other agent of the Corporation existing at the time of such amendment, repeal or modification.

TWELFTH: The Corporation renounces, to the fullest extent permitted by law, any interest or expectancy of the Corporation in, or in being offered an opportunity to participate in, any Excluded Opportunity. An "**Excluded Opportunity**" is any matter, transaction or interest that is presented to, or acquired, created or developed by, or which otherwise comes into the possession of (i) any director of the Corporation who is not an employee of the Corporation or any of its subsidiaries, or (ii) any holder of Preferred Stock or any partner, member, director, stockholder, employee or agent of any such holder, other than someone who is an employee of the Corporation or any of its subsidiaries (collectively, "**Covered Persons**"), unless such matter, transaction or interest is presented to, or acquired, created or developed by, or otherwise comes into the possession of, a Covered Person expressly and solely in such Covered Person's capacity as a director of the Corporation.

THIRTEENTH: Unless the Corporation consents in writing to the selection of an alternative forum, the Court of Chancery in the State of Delaware shall be the sole and exclusive forum for any stockholder (including a beneficial owner) to bring (i) any derivative action or proceeding brought on behalf of the Corporation, (ii) any action asserting a claim of breach of fiduciary duty owed by any director, officer or other employee of the Corporation to the Corporation or the Corporation's stockholders, (iii) any action asserting a claim against the Corporation, its directors, officers or employees arising pursuant to any provision of the Delaware General Corporation Law or the Corporation's certificate of incorporation or bylaws or (iv) any action asserting a claim against the Corporation, its directors, officers or employees governed by the internal affairs doctrine, except for, as to each of (i) through (iv) above, any claim as to which

the Court of Chancery determines that there is an indispensable party not subject to the jurisdiction of the Court of Chancery (and the indispensable party does not consent to the personal jurisdiction of the Court of Chancery within ten days following such determination), which is vested in the exclusive jurisdiction of a court or forum other than the Court of Chancery, or for which the Court of Chancery does not have subject matter jurisdiction. If any provision or provisions of this Article Thirteenth shall be held to be invalid, illegal or unenforceable as applied to any person or entity or circumstance for any reason whatsoever, then, to the fullest extent permitted by law, the validity, legality and enforceability of such provisions in any other circumstance and of the remaining provisions of this Article Thirteenth (including, without limitation, each portion of any sentence of this Article Thirteenth containing any such provision held to be invalid, illegal or unenforceable that is not itself held to be invalid, illegal or unenforceable) and the application of such provision to other persons or entities and circumstances shall not in any way be affected or impaired thereby.

FOURTEENTH: For purposes of Section 500 of the California Corporations Code (to the extent applicable), in connection with any repurchase of shares of Common Stock permitted under this Certificate of Incorporation from employees, officers, directors or consultants of the Corporation in connection with a termination of employment or services pursuant to agreements or arrangements approved by the Board of Directors (in addition to any other consent required under this Certificate of Incorporation), such repurchase may be made without regard to any "preferential dividends arrears amount" or "preferential rights amount" (as those terms are defined in Section 500 of the California Corporations Code). Accordingly, for purposes of making any calculation under California Corporations Code Section 500 in connection with such repurchase, the amount of any "preferential dividends arrears amount" or "preferential rights amount" (as those terms are defined therein) shall be deemed to be zero (0).

* * *

3. That the foregoing amendment and restatement was approved by the holders of the requisite number of shares of this corporation in accordance with Section 228 of the General Corporation Law.

4. That this Amended and Restated Certificate of Incorporation, which restates and integrates and further amends the provisions of this Corporation's Certificate of Incorporation, has been duly adopted in accordance with Sections 242 and 245 of the General Corporation Law.

IN WITNESS WHEREOF, this Amended and Restated Certificate of Incorporation has been executed by a duly authorized officer of this corporation on this [□] day of September, 2018.

By: _____
Name: Andrew Allen
Title: President and Chief Executive Officer

BYLAWS

OF

GRITSTONE ONCOLOGY, INC.

(a Delaware corporation)

Adopted as of August 21, 2015

TABLE OF CONTENTS

Exhibit 3.3

GRITSTONE ONCOLOGY, INC.

AMENDED AND RESTATED CERTIFICATE OF INCORPORATION

Gritstone Oncology, Inc., a corporation organized and existing under and by virtue of the Delaware General Corporation Law, hereby certifies as follows:

The name of the Corporation is Gritstone Oncology, Inc. The original Certificate of Incorporation of the corporation was filed with the Secretary of State of the State of Delaware on August 5, 2015.

The Amended and Restated Certificate of Incorporation in the form of Exhibit A attached hereto has been duly adopted in accordance with the provisions of Sections 242, 245 and 228 of the Delaware General Corporation Law.

The text of the Amended and Restated Certificate of Incorporation as heretofore amended or supplemented is hereby restated and further amended to read in its entirety as set forth in Exhibit A attached hereto. The Amended and Restated Certificate of Incorporation shall be effective as of 9:00 a.m. Eastern Time on , 2018.

IN WITNESS WHEREOF, this Amended and Restated Certificate of Incorporation has been signed this ____ day of _____, 2018.

GRITSTONE ONCOLOGY, INC.

By: _____
Andrew Allen
President and Chief Executive Officer

EXHIBIT A

AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION OF
GRITSTONE ONCOLOGY, INC.

ARTICLE I
NAME

The name of the corporation is Gritstone Oncology, Inc. (the "***Corporation***").

ARTICLE II
REGISTERED OFFICE AND AGENT

The address of the Corporation's registered office in the State of Delaware is 2711 Centerville Road, Suite 400, Wilmington, Delaware, County of New Castle, 19801. The name of its registered agent at such address is Corporation Service Company.

ARTICLE III
PURPOSE AND DURATION

The purpose of the Corporation is to engage in any lawful act or activity for which a corporation may be organized under the Delaware General Corporation Law. The Corporation is to have a perpetual existence.

ARTICLE IV
CAPITAL STOCK

Section 1. This Corporation is authorized to issue two classes of capital stock which shall be designated, respectively, "Common Stock" and "Preferred Stock." The total number of shares that the Corporation is authorized to issue is 310,000,000, of which 300,000,000 shares shall be Common Stock and 10,000,000 shares shall be Preferred Stock. The Common Stock shall have a par value of $0.0001 per share and the Preferred Stock shall have a par value of $0.0001 per share. Subject to the rights of the holders of any series of Preferred Stock, the number of authorized shares of any of the Common Stock or Preferred Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by the affirmative vote of the holders of a majority in voting power of the stock of the Corporation with the power to vote thereon irrespective of the provisions of Section 242(b)(2) of the Delaware General Corporation Law or any successor provision thereof, and no vote of the holders of any of the Common Stock or Preferred Stock voting separately as a class shall be required therefor.

Section 2. Shares of Preferred Stock may be issued from time to time in one or more series. The Board of Directors of the Corporation (the "***Board of Directors***") is hereby authorized to provide from time to time by resolution or resolutions for the creation and issuance, out of the authorized and unissued shares of Preferred Stock, of one or more series of Preferred Stock by filing a certificate (a "***Certificate of Designation***") pursuant to the Delaware General Corporation Law, setting forth such resolution and, with respect to each such series, establishing the designation of such series and the number of shares to be included in such series and fixing

the voting powers (full or limited, or no voting power), preferences and relative, participating, optional or other special rights, and the qualifications, limitations and restrictions thereof, of the shares of each such series. Without limiting the generality of the foregoing, the resolution or resolutions providing for the establishment of any series of Preferred Stock may, to the extent permitted by law, provide that such series shall be superior to, rank equally with or be junior to the Preferred Stock of any other series. The powers, preferences and relative, participating, optional and other special rights of each series of Preferred Stock, and the qualifications, limitations or restrictions thereof, if any, may be different from those of any and all other series at any time outstanding. Except as otherwise expressly provided in the resolution or resolutions providing for the establishment of any series of Preferred Stock, no vote of the holders of shares of Preferred Stock or Common Stock shall be a prerequisite to the issuance of any shares of any series of the Preferred Stock so authorized in accordance with this Amended and Restated Certificate of Incorporation. Unless otherwise provided in the Certificate of Designation establishing a series of Preferred Stock, the Board of Directors may, by resolution or resolutions, increase or decrease (but not below the number of shares of such series then outstanding) the number of shares of such series and, if the number of shares of such series shall be so decreased, the shares constituting such decrease shall resume the status that they had prior to the adoption of the resolution originally fixing the number of shares of such series.

ARTICLE V
BOARD OF DIRECTORS

For the management of the business and for the conduct of the affairs of the Corporation it is further provided that:

Section 1.

(a) The management of the business and the conduct of the affairs of the Corporation shall be vested in the Board of Directors. The number of directors which shall constitute the whole Board of Directors shall be fixed exclusively by one or more resolutions adopted from time to time by the Board of Directors. Except as otherwise expressly delegated by resolution of the Board of Directors, the Board of Directors shall have the exclusive power and authority to appoint and remove officers of the Corporation.

(b) Other than any directors elected by the separate vote of the holders of one or more series of Preferred Stock, the Board of Directors shall be and is divided into three classes, designated as Class I, Class II and Class III, as nearly equal in number as possible. Directors shall be assigned to each class in accordance with a resolution or resolutions adopted by the Board of Directors. At the first annual meeting of stockholders following the effectiveness of this Amended and Restated Certificate of Incorporation (the "***Qualifying Record Date***"), the term of office of the Class I directors shall expire and Class I directors shall be elected for a full term of three years. At the second annual meeting of stockholders following the Qualifying Record Date, the term of office of the Class II directors shall expire and Class II directors shall be elected for a full term of three years. At the third annual meeting of stockholders following the Qualifying Record Date, the term of office of the Class III directors shall expire and Class III directors shall be elected for a full term of three years. Subject to the special rights of the holders of one or more series of Preferred Stock to elect directors, at each succeeding annual meeting of stockholders, directors shall be elected for a full term of three years to succeed the directors of the class whose terms expire at such annual meeting.

Notwithstanding the foregoing provisions of this Article V, Section 1(b), each director shall serve until his or her successor is duly elected and qualified or until his or her earlier death, resignation, disqualification, retirement or removal. No decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

(c) Subject to the special rights of the holders of one or more series of Preferred Stock to elect directors, the Board of Directors or any individual director may be removed from office at any time, but only for cause and only by the affirmative vote of the holders of sixty-six and two-thirds percent (66-2/3%) of the voting power of all the then outstanding shares of voting stock of the Corporation with the power to vote at an election of directors (the "***Voting Stock***").

(d) Subject to the special rights of the holders of one or more series of Preferred Stock to elect directors, any vacancies on the Board of Directors resulting from death, resignation, disqualification, retirement, removal or other causes and any newly created directorships resulting from any increase in the number of directors shall, unless the Board of Directors determines by resolution that any such vacancies or newly created directorships shall be filled by the stockholders, and except as otherwise provided by law, be filled only by the affirmative vote of a majority of the directors then in office, even though less than a quorum, or by a sole remaining director, and shall not be filled by the stockholders. Any director appointed in accordance with the preceding sentence shall hold office for a term that shall coincide with the remaining term of the class to which the director shall have been appointed and until such director's successor shall have been elected and qualified or until his or her earlier death, resignation, disqualification, retirement or removal.

Section 2.

(a) In furtherance and not in limitation of the powers conferred by statute, the Board of Directors is expressly authorized to make, alter or repeal Bylaws of the Corporation. In addition to any vote of the holders of any class or series of stock of the Corporation required by applicable law or by this Amended and Restated Certificate of Incorporation (including any Certificate of Designation in respect of one or more series of Preferred Stock), the adoption, amendment or repeal of the Bylaws of the Corporation by the stockholders of the Corporation shall require the affirmative vote of the holders of at least sixty-six and two-thirds percent (66-2/3%) of the voting power of all the then-outstanding shares of the Voting Stock, voting together as a single class.

(b) The directors of the Corporation need not be elected by written ballot unless the Bylaws so provide.

ARTICLE VI
STOCKHOLDERS

Section 1. Subject to the special rights of the holders of one or more series of Preferred Stock, any action required or permitted to be taken by the stockholders of the Corporation must be effected at a duly called annual or special meeting of the stockholders of the Corporation, and the taking of any action by written consent of the stockholders in lieu of a meeting of the stockholders is specifically denied.

Section 2. Subject to the special rights of the holders of one or more series of Preferred Stock, special meetings of the stockholders of the Corporation may be called, for any purpose or purposes, at any time by the Board of Directors, chief executive officer or president (in the absence of a chief executive officer), but such special meetings may not be called by stockholders or any other person or persons.

Section 3. Advance notice of stockholder nominations for the election of directors and of other business proposed to be brought by stockholders before any meeting of the stockholders of the Corporation shall be given in the manner provided in the Bylaws of the Corporation.

ARTICLE VII
LIABILITY AND INDEMNIFICATION

Section 1. To the fullest extent permitted by the Delaware General Corporation Law, as the same exists or as may hereafter be amended, a director of the Corporation shall not be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director. If the Delaware General Corporation Law is amended after approval by the stockholders of this Article VII to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the Corporation shall be eliminated or limited to the fullest extent permitted by the Delaware General Corporation Law as so amended, automatically and without further action, upon the date of such amendment.

Section 2. The Corporation, to the fullest extent permitted by law, shall indemnify and advance expenses to any person made or threatened to be made a party to an action, suit or proceeding, whether criminal, civil, administrative or investigative, by reason of the fact that he or she, or his or her testator or intestate, is or was a director or officer of the Corporation or any predecessor of the Corporation, or serves or served at any other enterprise as a director or officer at the request of the Corporation or any predecessor to the Corporation.

Section 3. The Corporation, to the fullest extent permitted by law, may indemnify and advance expenses to any person made or threatened to be made a party to an action, suit or proceeding, whether criminal, civil, administrative or investigative, by reason of the fact that he or she, or his or her testator or intestate, is or was an employee or agent of the Corporation or any predecessor of the Corporation, or serves or served at any other enterprise as an employee or agent at the request of the Corporation or any predecessor to the Corporation.

Section 4. Neither any amendment nor repeal of this Article VII, nor the adoption by amendment of this certificate of incorporation of any provision inconsistent with this Article VII, shall eliminate or reduce the effect of this Article VII in respect of any matter occurring, or any action or proceeding accruing or arising (or that, but for this Article VII, would accrue or arise) prior to such amendment or repeal or adoption of an inconsistent provision.

ARTICLE VIII
EXCLUSIVE FORUM

Unless the Corporation consents in writing to the selection of an alternative forum, the federal district courts of the United States of America shall be the exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act of 1933, as amended. Any person or entity purchasing or otherwise acquiring any interest in any security of the Corporation shall be deemed to have notice of and consented to this Article VIII.

Unless the Corporation consents in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall, to the fullest extent permitted by law, be the sole and exclusive forum for (1) any derivative action or proceeding brought on behalf of the Corporation, (2) any action asserting a claim of breach of a fiduciary duty owed by any director, officer or other employee of the Corporation to the Corporation or the Corporation's stockholders, (3) any action asserting a claim arising pursuant to any provision of the Delaware General Corporation Law, this Amended and Restated Certificate of Incorporation or the Bylaws, or (4) any action asserting a claim governed by the internal affairs doctrine. Any person or entity purchasing or otherwise acquiring or holding any interest in shares of capital stock of the Corporation shall be deemed to have notice of and consented to the provisions of this Article VIII.

ARTICLE IX
AMENDMENTS

Notwithstanding any other provisions of this Amended and Restated Certificate of Incorporation or any provision of law which might otherwise permit a lesser vote or no vote, but in addition to any affirmative vote of the holders of any particular class or series of the Voting Stock required by law or by this Amended and Restated Certificate of Incorporation (including any Certificate of Designation in respect of one or more series of Preferred Stock), the affirmative vote of the holders of at least sixty-six and two-thirds percent (66-2/3%) of the voting power of all of the then-outstanding shares of the Voting Stock, voting together as a single class, shall be required to alter, amend or repeal Articles V, VI, VII and VIII and this Article IX.

* * * *

AMENDED AND RESTATED BYLAWS OF

GRITSTONE ONCOLOGY, INC.

(a Delaware corporation)

TABLE OF CONTENTS

TABLE OF CONTENTS
(continued)

AMENDED AND RESTATED
BYLAWS OF
GRITSTONE ONCOLOGY, INC.

ARTICLE I – CORPORATE OFFICES

1.1 REGISTERED OFFICE.

The registered office of Gritstone Oncology, Inc. (the "Corporation") shall be fixed in the Corporation's certificate of incorporation, as the same may be amended from time to time (the "Certificate of Incorporation").

1.2 OTHER OFFICES.

The Corporation may have additional offices at any place or places, within or outside the State of Delaware, as the Corporation's board of directors (the "Board") may from time to time establish or as the business of the Corporation may require.

ARTICLE II – MEETINGS OF STOCKHOLDERS

2.1 PLACE OF MEETINGS.

Meetings of stockholders shall be held at any place, within or outside the State of Delaware, designated by the Board. The Board may, in its sole discretion, determine that a meeting of stockholders shall not be held at any place, but may instead be held solely by means of remote communication as authorized by Section 211(a)(2) of the General Corporation Law of the State of Delaware (the "DGCL"). In the absence of any such designation or determination, stockholders' meetings shall be held at the Corporation's principal executive office.

2.2 ANNUAL MEETING.

The Board shall designate the date and time of the annual meeting. At the annual meeting, directors shall be elected and other proper business properly brought before the meeting in accordance with Section 2.4 may be transacted.

2.3 SPECIAL MEETING.

Except as otherwise provided by the Certificate of Incorporation, a special meeting of the stockholders may be called at any time by the Board, chief executive officer or president (in the absence of a chief executive officer), but such special meetings may not be called by the stockholders or any other person or persons.

No business may be transacted at such special meeting other than the business specified in the notice to stockholders. Nothing contained in this paragraph of this Section 2.3 shall be construed as limiting, fixing, or affecting the time when a meeting of stockholders called by action of the Board may be held.

2.4 ADVANCE NOTICE PROCEDURES FOR BUSINESS BROUGHT BEFORE A MEETING.

(i) At an annual meeting of the stockholders, only such business shall be conducted as shall have been properly brought before the meeting. To be properly brought before an annual meeting, business must be (a) specified in a notice of meeting given by or at the direction of the Board, (b) if not specified in a notice of meeting, otherwise brought before the meeting by or at the direction of the Board or the chairperson of the Board, or (c) otherwise properly brought before the meeting by a stockholder present in person who (A)(1) was a beneficial owner of shares of the Corporation both at the time of giving the notice provided for in this Section 2.4 and at the time of the meeting, (2) is entitled to vote at the meeting and (3) has complied with this Section 2.4 in all applicable respects, or (B) properly made such proposal in accordance with Rule 14a-8 under the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder (as so amended and inclusive of such rules and regulations, the "Exchange Act"). The foregoing clause (c) shall be the exclusive means for a stockholder to propose business to be brought before an annual meeting of the stockholders. The only matters that may be brought before a special meeting are the matters specified in the notice of meeting given by or at the direction of the person calling the meeting pursuant to Section 2.3 of these bylaws, and stockholders shall not be permitted to propose business to be brought before a special meeting of the stockholders. For purposes of this Section 2.4, "present in person" shall mean that the stockholder proposing that the business be brought before the annual meeting of the Corporation, or, if the proposing stockholder is not an individual, a qualified representative of such proposing stockholder, appear at such annual meeting. A "qualified representative" of such proposing stockholder shall be, if such proposing stockholder is (x) a general or limited partnership, any general partner or person who functions as a general partner of the general or limited partnership or who controls the general or limited partnership, (y) a corporation or a limited liability company, any officer or person who functions as an officer of the corporation or limited liability company or any officer, director, general partner or person who functions as an officer, director or general partner of any entity ultimately in control of the corporation or limited liability company or (z) a trust, any trustee of such trust. Stockholders seeking to nominate persons for election to the Board must comply with Section 2.5 of these bylaws, and this Section 2.4 shall not be applicable to nominations except as expressly provided in Section 2.5 of these bylaws.

(ii) For business to be properly brought before an annual meeting by a stockholder, the stockholder must (a) provide Timely Notice (as defined below) thereof in writing and in proper form to the Secretary of the Corporation and (b) provide any updates or supplements to such notice at the times and in the forms required by this Section 2.4. To be timely, a stockholder's notice must be delivered to, or mailed and received at, the principal executive offices of the Corporation not less than ninety (90) days nor more than one hundred twenty (120) days prior to the one-year anniversary of the preceding year's annual meeting; *provided, however*, that if the date of

the annual meeting is more than thirty (30) days before or more than sixty (60) days after such anniversary date, notice by the stockholder to be timely must be so delivered, or mailed and received, not later than the ninetieth (90th) day prior to such annual meeting or, if later, the tenth (10th) day following the day on which public disclosure of the date of such annual meeting was first made (such notice within such time periods, "Timely Notice"). In no event shall any adjournment or postponement of an annual meeting or the announcement thereof commence a new time period for the giving of Timely Notice as described above.

(iii) To be in proper form for purposes of this Section 2.4, a stockholder's notice to the Secretary shall set forth:

(a) As to each Proposing Person (as defined below), (A) the name and address of such Proposing Person (including, if applicable, the name and address that appear on the Corporation's books and records); and (B) the class or series and number of shares of the Corporation that are, directly or indirectly, owned of record or beneficially owned (within the meaning of Rule 13d-3 under the Exchange Act) by such Proposing Person, except that such Proposing Person shall in all events be deemed to beneficially own any shares of any class or series of the Corporation as to which such Proposing Person has a right to acquire beneficial ownership at any time in the future (the disclosures to be made pursuant to the foregoing clauses (A) and (B) are referred to as "Stockholder Information");

(b) As to each Proposing Person, (A) the full notional amount of any securities that, directly or indirectly, underlie any "derivative security" (as such term is defined in Rule 16a-1(c) under the Exchange Act) that constitutes a "call equivalent position" (as such term is defined in Rule 16a-1(b) under the Exchange Act) ("Synthetic Equity Position") and that is, directly or indirectly, held or maintained by such Proposing Person with respect to any shares of any class or series of shares of the Corporation; *provided* that, for the purposes of the definition of "Synthetic Equity Position," the term "derivative security" shall also include any security or instrument that would not otherwise constitute a "derivative security" as a result of any feature that would make any conversion, exercise or similar right or privilege of such security or instrument becoming determinable only at some future date or upon the happening of a future occurrence, in which case the determination of the amount of securities into which such security or instrument would be convertible or exercisable shall be made assuming that such security or instrument is immediately convertible or exercisable at the time of such determination; and, *provided*, *further*, that any Proposing Person satisfying the requirements of Rule 13d-1(b)(1) under the Exchange Act (other than a Proposing Person that so satisfies Rule 13d-1(b)(1) under the Exchange Act solely by reason of Rule 13d-1(b)(1)(ii)(E)) shall not be deemed to hold or maintain the notional amount of any securities that underlie a Synthetic Equity Position held by such Proposing Person as a hedge with respect to a bona fide derivatives trade or position of such Proposing Person arising in the ordinary course of such Proposing Person's business as a derivatives dealer, (B) any rights to

dividends on the shares of any class or series of shares of the Corporation owned beneficially by such Proposing Person that are separated or separable from the underlying shares of the Corporation, (C)(x) if such Proposing Person is (i) a general or limited partnership, syndicate or other group, the identity of each general partner and each person who functions as a general partner of the general or limited partnership, each member of the syndicate or group and each person controlling the general partner or member, (ii) a corporation or a limited liability company, the identity of each officer and each person who functions as an officer of the corporation or limited liability company, each person controlling the corporation or limited liability company and each officer, director, general partner and person who functions as an officer, director or general partner of any entity ultimately in control of the corporation or limited liability company or (iii) a trust, any trustee of such trust (each such person or persons set forth in the preceding clauses (i), (ii) and (iii), a "Responsible Person"), any fiduciary duties owed by such Responsible Person to the equity holders or other beneficiaries of such Proposing Person and any material interests or relationships of such Responsible Person that are not shared generally by other record or beneficial holders of the shares of any class or series of the Corporation and that reasonably could have influenced the decision of such Proposing Person to propose such business to be brought before the meeting, and (y) if such Proposing Person is a natural person, any material interests or relationships of such natural person that are not shared generally by other record or beneficial holders of the shares of any class or series of the Corporation and that reasonably could have influenced the decision of such Proposing Person to propose such business to be brought before the meeting, (D) any material shares or any Synthetic Equity Position in any principal competitor of the Corporation in any principal industry of the Corporation held by such Proposing Persons, (E) a summary of any material discussions regarding the business proposed to be brought before the meeting (x) between or among any of the Proposing Persons or (y) between or among any Proposing Person and any other record or beneficial holder of the shares of any class or series of the Corporation (including their names), (F) any material pending or threatened legal proceeding in which such Proposing Person is a party or material participant involving the Corporation or any of its officers or directors, or any affiliate of the Corporation, (G) any other material relationship between such Proposing Person, on the one hand, and the Corporation, any affiliate of the Corporation or any principal competitor of the Corporation, on the other hand, (H) any direct or indirect material interest in any material contract or agreement of such Proposing Person with the Corporation, any affiliate of the Corporation or any principal competitor of the Corporation (including, in any such case, any employment agreement, collective bargaining agreement or consulting agreement) and (I) any other information relating to such Proposing Person that would be required to be disclosed in a proxy statement or other filing required to be made in connection with solicitations of proxies or consents by such Proposing Person in support of the business proposed to be brought before the meeting pursuant to Section 14(a) of the Exchange Act (the disclosures to be made pursuant to the foregoing clauses (A) through (I) are referred to as

"Disclosable Interests"); *provided*, *however*, that Disclosable Interests shall not include any such disclosures with respect to the ordinary course business activities of any broker, dealer, commercial bank, trust company or other nominee who is a Proposing Person solely as a result of being the stockholder directed to prepare and submit the notice required by these bylaws on behalf of a beneficial owner; and

(c) As to each item of business that the stockholder proposes to bring before the annual meeting, (A) a brief description of the business desired to be brought before the annual meeting, the reasons for conducting such business at the annual meeting and any material interest in such business of each Proposing Person, (B) the text of the proposal or business (including the text of any resolutions proposed for consideration and in the event that such business includes a proposal to amend the bylaws of the Corporation, the language of the proposed amendment), (C) a reasonably detailed description of all agreements, arrangements and understandings between or among any of the Proposing Persons or between or among any Proposing Person and any other person or entity (including their names) in connection with the proposal of such business by such stockholder and (D) any other information relating to such item of business that would be required to be disclosed in a proxy statement or other filing required to be made in connection with solicitations of proxies in support of the business proposed to be brought before the meeting pursuant to Section 14(a) of the Exchange Act; *provided*, *however*, that the disclosures required by this Section 2.4(iii) shall not include any disclosures with respect to any broker, dealer, commercial bank, trust company or other nominee who is a Proposing Person solely as a result of being the stockholder directed to prepare and submit the notice required by these bylaws on behalf of a beneficial owner.

(iv) For purposes of this Section 2.4, the term "Proposing Person" shall mean (a) the stockholder providing the notice of business proposed to be brought before an annual meeting, (b) the beneficial owner or beneficial owners, if different, on whose behalf the notice of the business proposed to be brought before the annual meeting is made and (c) any participant (as defined in paragraphs (a)(ii)-(vi) of Instruction 3 to Item 4 of Schedule 14A) with such stockholder in such solicitation or associate (within the meaning of Rule 12b-2 under the Exchange Act for the purposes of these bylaws) of such stockholder or beneficial owner.

(v) A Proposing Person shall update and supplement its notice to the Corporation of its intent to propose business at an annual meeting, if necessary, so that the information provided or required to be provided in such notice pursuant to this Section 2.4 shall be true and correct as of the record date for notice of the meeting and as of the date that is ten (10) business days prior to the meeting or any adjournment or postponement thereof, and such update and supplement shall be delivered to, or mailed and received by, the Secretary at the principal executive offices of the Corporation not later than five (5) business days after the record date for notice of the meeting (in the case of the update and supplement required to be made as of such record date), and not later than eight (8) business days prior to the date for the meeting or, if practicable, any adjournment or postponement thereof (and, if not practicable, on the first practicable date prior to the date to which the meeting has been adjourned or postponed) (in the case of the update and supplement required to be made as of ten (10) business days prior to the meeting or any adjournment or postponement thereof).

(vi) Notwithstanding anything in these bylaws to the contrary, no business shall be conducted at an annual meeting that is not properly brought before the meeting in accordance with this Section 2.4. The presiding officer of the meeting shall, if the facts warrant, determine that the business was not properly brought before the meeting in accordance with this Section 2.4, and if he or she should so determine, he or she shall so declare to the meeting and any such business not properly brought before the meeting shall not be transacted.

(vii) This Section 2.4 is expressly intended to apply to any business proposed to be brought before an annual meeting of stockholders, other than any proposal made in accordance with Rule 14a-8 under the Exchange Act and included in the Corporation's proxy statement. In addition to the requirements of this Section 2.4 with respect to any business proposed to be brought before an annual meeting, each Proposing Person shall comply with all applicable requirements of the Exchange Act with respect to any such business. Nothing in this Section 2.4 shall be deemed to affect the rights of stockholders to request inclusion of proposals in the Corporation's proxy statement pursuant to Rule 14a-8 under the Exchange Act.

(viii) For purposes of these bylaws, "public disclosure" shall mean disclosure in a press release reported by a national news service or in a document publicly filed by the Corporation with the Securities and Exchange Commission pursuant to Sections 13, 14 or 15(d) of the Exchange Act.

2.5 ADVANCE NOTICE PROCEDURES FOR NOMINATIONS OF DIRECTORS.

(i) Nominations of any person for election to the Board at an annual meeting or at a special meeting (but only if the election of directors is a matter specified in the notice of meeting given by or at the direction of the person calling such special meeting) may be made at such meeting only (a) by or at the direction of the Board, including by any committee or persons authorized to do so by the Board or these bylaws, or (b) by a stockholder present in person (A) who was a beneficial owner of shares of the Corporation both at the time of giving the notice provided for in this Section 2.5 and at the time of the meeting, (B) is entitled to vote at the meeting and (C) has complied with this Section 2.5 as to such notice and nomination. The foregoing clause (b) shall be the exclusive means for a stockholder to make any nomination of a person or persons for election to the Board at an annual meeting or special meeting. For purposes of this Section 2.5, "present in person" shall mean that the stockholder proposing that the business be brought before the meeting of the Corporation, or, if the proposing stockholder is not an individual, a qualified representative of such stockholder, appear at such meeting. A "qualified representative" of such proposing stockholder shall be, if such proposing stockholder is (x) a general or limited partnership, any general partner or person who functions as a general partner of the general or limited partnership or who controls the general or limited partnership, (y) a corporation or a limited liability company, any officer or person who functions as an officer of the corporation or limited liability company or any officer, director, general partner or person who functions as an officer, director or general partner of any entity ultimately in control of the corporation or limited liability company or (z) a trust, any trustee of such trust.

(ii) Without qualification, for a stockholder to make any nomination of a person or persons for election to the Board at an annual meeting, the stockholder must (a) provide Timely Notice (as defined in Section 2.4(ii) of these bylaws) thereof in writing and in proper form to the Secretary of the Corporation, (b) provide the information with respect to such stockholder and its proposed nominee as required by this Section 2.5, and (c) provide any updates or supplements to such notice at the times and in the forms required by this Section 2.5. Without qualification, if the election of directors is a matter specified in the notice of meeting given by or at the direction of the person calling such special meeting, then for a stockholder to make any nomination of a person or persons for election to the Board at a special meeting, the stockholder must (a) provide timely notice thereof in writing and in proper form to the Secretary of the Corporation at the principal executive offices of the Corporation, (b) provide the information with respect to such stockholder and its proposed nominee as required by this Section 2.5, and (c) provide any updates or supplements to such notice at the times and in the forms required by this Section 2.5. To be timely, a stockholder's notice for nominations to be made at a special meeting must be delivered to, or mailed and received at, the principal executive offices of the Corporation not earlier than the one hundred twentieth (120th) day prior to such special meeting and not later than the ninetieth (90th) day prior to such special meeting or, if later, the tenth (10th) day following the day on which public disclosure (as defined in Section 2.4(ix) of these bylaws) of the date of such special meeting was first made. In no event shall any adjournment or postponement of an annual meeting or special meeting or the announcement thereof commence a new time period for the giving of a stockholder's notice as described above.

(iii) To be in proper form for purposes of this Section 2.5, a stockholder's notice to the Secretary shall set forth:

(a) As to each Nominating Person (as defined below), the Stockholder Information (as defined in Section 2.4(iii)(a) of these bylaws) except that for purposes of this Section 2.5, the term "Nominating Person" shall be substituted for the term "Proposing Person" in all places it appears in Section 2.4(iii)(a);

(b) As to each Nominating Person, any Disclosable Interests (as defined in Section 2.4(iii)(b), except that for purposes of this Section 2.5 the term "Nominating Person" shall be substituted for the term "Proposing Person" in all places it appears in Section 2.4(iii)(b) and the disclosure with respect to the business to be brought before the meeting in Section 2.4(iii)(b) shall be made with respect to the election of directors at the meeting);

(c) As to each person whom a Nominating Person proposes to nominate for election as a director, (A) all information with respect to such proposed nominee that would be required to be set forth in a stockholder's notice pursuant to this Section 2.5

if such proposed nominee were a Nominating Person, (B) all information relating to such proposed nominee that is required to be disclosed in a proxy statement or other filings required to be made in connection with solicitations of proxies for election of directors in a contested election pursuant to Section 14(a) under the Exchange Act (including such proposed nominee's written consent to being named in the proxy statement as a nominee and to serving as a director if elected), (C) a description of any direct or indirect material interest in any material contract or agreement between or among any Nominating Person, on the one hand, and each proposed nominee or his or her respective associates or any other participants in such solicitation, on the other hand, including, without limitation, all information that would be required to be disclosed pursuant to Item 404 under Regulation S-K if such Nominating Person were the "registrant" for purposes of such rule and the proposed nominee were a director or executive officer of such registrant (the disclosures to be made pursuant to the foregoing clauses (A) through (C) are referred to as "Nominee Information"), and (D) a completed and signed questionnaire, representation and agreement as provided in Section 2.5(vi); and

(d) The Corporation may require any proposed nominee to furnish such other information (A) as may reasonably be required by the Corporation to determine the eligibility of such proposed nominee to serve as an independent director of the Corporation in accordance with the Corporation's Corporate Governance Guidelines or (B) that could be material to a reasonable stockholder's understanding of the independence or lack of independence of such proposed nominee.

(iv) For purposes of this Section 2.5, the term "Nominating Person" shall mean (a) the stockholder providing the notice of the nomination proposed to be made at the meeting, (b) the beneficial owner or beneficial owners, if different, on whose behalf the notice of the nomination proposed to be made at the meeting is made and (c) any associate of such stockholder or beneficial owner or any other participant in such solicitation.

(v) A stockholder providing notice of any nomination proposed to be made at a meeting shall further update and supplement such notice, if necessary, so that the information provided or required to be provided in such notice pursuant to this Section 2.5 shall be true and correct as of the record date for notice of the meeting and as of the date that is ten (10) business days prior to the meeting or any adjournment or postponement thereof, and such update and supplement shall be delivered to, or mailed and received by, the Secretary at the principal executive offices of the Corporation not later than five (5) business days after the record date for notice of the meeting (in the case of the update and supplement required to be made as of such record date), and not later than eight (8) business days prior to the date for the meeting or, if practicable, any adjournment or postponement thereof (and, if not practicable, on the first practicable date prior to the date to which the meeting has been adjourned or postponed) (in the case of the update and supplement required to be made as of ten (10) business days prior to the meeting or any adjournment or postponement thereof).

(vi) To be eligible to be a nominee for election as a director of the Corporation at an annual or special meeting, the proposed nominee must be nominated in the manner prescribed in Section 2.5 and must deliver (in accordance with the time period prescribed for delivery in a notice to such proposed nominee given by or on behalf of the Board), to the Secretary at the principal executive offices of the Corporation, (a) a completed written questionnaire (in a form provided by the Corporation) with respect to the background, qualifications, stock ownership and independence of such proposed nominee and (b) a written representation and agreement (in form provided by the Corporation) that such proposed nominee (A) is not and, if elected as a director during his or her term of office, will not become a party to (1) any agreement, arrangement or understanding with, and has not given and will not give any commitment or assurance to, any person or entity as to how such proposed nominee, if elected as a director of the Corporation, will act or vote on any issue or question (a "Voting Commitment") or (2) any Voting Commitment that could limit or interfere with such proposed nominee's ability to comply, if elected as a director of the Corporation, with such proposed nominee's fiduciary duties under applicable law, (B) is not, and will not become a party to, any agreement, arrangement or understanding with any person or entity other than the Corporation with respect to any direct or indirect compensation or reimbursement for service as a director and (C) if elected as a director of the Corporation, will comply with all applicable corporate governance, conflict of interest, confidentiality, stock ownership and trading and other policies and guidelines of the Corporation applicable to directors and in effect during such person's term in office as a director (and, if requested by any proposed nominee, the Secretary of the Corporation shall provide to such proposed nominee all such policies and guidelines then in effect).

(vii) The Board may also require any proposed nominee for election as a Director to furnish such other information as may reasonably be requested by the Board in writing prior to the meeting of stockholders at which such proposed nominee's nomination is to be acted upon in order for the Board to determine the eligibility of such candidate for nomination to be an independent director of the Corporation in accordance with the Corporation's Corporate Governance Guidelines.

(viii) In addition to the requirements of this Section 2.5 with respect to any nomination proposed to be made at a meeting, each Proposing Person shall comply with all applicable requirements of the Exchange Act with respect to any such nominations.

(ix) No proposed nominee shall be eligible for nomination as a director of the Corporation unless such proposed nominee and the Nominating Person seeking to place such proposed nominee's name in nomination have complied with this Section 2.5, as applicable. The presiding officer at the meeting shall, if the facts warrant, determine that a nomination was not properly made in accordance with this Section 2.5, and if he or she should so determine, he or she shall so declare such determination to the meeting, the defective nomination shall be disregarded and any ballots cast for the proposed nominee in question (but in the case of any form of ballot listing other qualified nominees, only the ballots case for the nominee in question) shall be void and of no force or effect.

(x) Notwithstanding anything in these bylaws to the contrary, no candidate for nomination shall be eligible to be seated as a director of the Corporation unless nominated and elected in accordance with this Section 2.5.

2.6 NOTICE OF STOCKHOLDERS' MEETINGS.

Unless otherwise provided by law, the Certificate of Incorporation or these bylaws, the notice of any meeting of stockholders shall be sent or otherwise given in accordance with either Section 2.7 or Section 8.1 of these bylaws not less than ten (10) nor more than sixty (60) days before the date of the meeting to each stockholder entitled to vote at such meeting. The notice shall specify the place, if any, date and hour of the meeting, the means of remote communication, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such meeting, and, in the case of a special meeting, the purpose or purposes for which the meeting is called.

2.7 MANNER OF GIVING NOTICE; AFFIDAVIT OF NOTICE.

Notice of any meeting of stockholders shall be deemed given:

(i) if mailed, when deposited in the U.S. mail, postage prepaid, directed to the stockholder at his or her address as it appears on the Corporation's records; or

(ii) if electronically transmitted as provided in Section 8.1 of these bylaws.

An affidavit of the secretary or an assistant secretary of the Corporation or of the transfer agent or any other agent of the Corporation that the notice has been given by mail or by a form of electronic transmission, as applicable, shall, in the absence of fraud, be prima facie evidence of the facts stated therein.

2.8 QUORUM.

Unless otherwise provided by law, the Certificate of Incorporation or these bylaws, the holders of a majority in voting power of the stock issued and outstanding and entitled to vote, present in person, or by remote communication, if applicable, or represented by proxy, shall constitute a quorum for the transaction of business at all meetings of the stockholders. If, however, a quorum is not present or represented at any meeting of the stockholders, then either (i) the chairperson of the meeting or (ii) a majority in voting power of the stockholders entitled to vote at the meeting, present in person, or by remote communication, if applicable, or represented by proxy, shall have power to adjourn the meeting from time to time in the manner provided in Section 2.9 of these bylaws until a quorum is present or represented. At such adjourned meeting at which a quorum is present or represented, any business may be transacted that might have been transacted at the meeting as originally noticed.

2.9 ADJOURNED MEETING; NOTICE.

When a meeting is adjourned to another time or place, unless these bylaws otherwise require, notice need not be given of the adjourned meeting if the time, place, if any, thereof, and the means of remote communications, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such adjourned meeting are announced at the meeting at which the adjournment is taken. At the adjourned meeting, the Corporation may transact any business which might have been transacted at the original meeting. If the adjournment is for more than thirty (30) days, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting. If after the adjournment a new record date for determination of stockholders entitled to vote is fixed for the adjourned meeting, the Board shall fix as the record date for determining stockholders entitled to notice of such adjourned meeting the same or an earlier date as that fixed for determination of stockholders entitled to vote at the adjourned meeting, and shall give notice of the adjourned meeting to each stockholder of record as of the record date so fixed for notice of such adjourned meeting.

2.10 CONDUCT OF BUSINESS.

The chairperson of any meeting of stockholders shall determine the order of business and the procedure at the meeting, including such regulation of the manner of voting and the conduct of business.

2.11 VOTING.

The stockholders entitled to vote at any meeting of stockholders shall be determined in accordance with the provisions of Section 2.13 of these bylaws, subject to Section 217 (relating to voting rights of fiduciaries, pledgors and joint owners of stock) and Section 218 (relating to voting trusts and other voting agreements) of the DGCL.

Except as may be otherwise provided in the Certificate of Incorporation or these bylaws, each stockholder shall be entitled to one (1) vote for each share of capital stock held by such stockholder.

At all duly called or convened meetings of stockholders, at which a quorum is present, for the election of directors, a plurality of the votes cast shall be sufficient to elect a director. Except as otherwise provided by the Certificate of Incorporation, these bylaws, the rules or regulations of any stock exchange applicable to the Corporation, or applicable law or pursuant to any regulation applicable to the Corporation or its securities, all other elections and questions presented to the stockholders at a duly called or convened meeting, at which a quorum is present, shall be decided by the majority of the votes cast affirmatively or negatively (excluding abstentions and broker non-votes) and shall be valid and binding upon the Corporation.

2.12 NO STOCKHOLDER ACTION BY WRITTEN CONSENT WITHOUT A MEETING.

Subject to the rights of the holders of the shares of any series of Preferred Stock or any other class of stock or series thereof having a preference over the Common Stock as to dividends or upon liquidation, and except as otherwise provided in the Certificate of Incorporation, any action required or permitted to be taken by the stockholders of the Corporation must be effected at a duly called annual or special meeting of stockholders of the Corporation and may not be effected by any consent in writing by such stockholders.

2.13 RECORD DATE FOR STOCKHOLDER NOTICE; VOTING; GIVING CONSENTS.

In order that the Corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, the Board may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board, and which record date shall not be more than sixty (60) days nor less than ten (10) days before the date of such meeting. If the Board so fixes a date, such date shall also be the record date for determining the stockholders entitled to vote at such meeting unless the Board determines, at the time it fixes such record date, that a later date on or before the date of the meeting shall be the date for making such determination. If no record date is fixed by the Board, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be the close of business on the next day preceding the day on which notice is first given, or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held. A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the Board may fix a new record date for the adjourned meeting; and in such case shall also fix as the record date for stockholders entitled to notice of such adjourned meeting the same or an earlier date as that fixed for determination of stockholders entitled to vote in accordance herewith at the adjourned meeting.

In order that the Corporation may determine the stockholders entitled to receive payment of any dividend or other distribution or allotment or any rights or the stockholders entitled to exercise any rights in respect of any change, conversion or exchange of capital stock, or for the purposes of any other lawful action, the Board may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted, and which record date shall be not more than sixty (60) days prior to such action. If no record date is fixed, the record date for determining stockholders for any such purpose shall be at the close of business on the day on which the Board adopts the resolution relating thereto.

2.14 PROXIES.

Each stockholder entitled to vote at a meeting of stockholders may authorize another person or persons to act for such stockholder by proxy authorized by an instrument in writing or by a transmission permitted by law filed in accordance with the procedure established for the meeting,

but no such proxy shall be voted or acted upon after three (3) years from its date, unless the proxy provides for a longer period. The revocability of a proxy that states on its face that it is irrevocable shall be governed by the provisions of Section 212 of the DGCL. A proxy may be in the form of a telegram, cablegram or other means of electronic transmission which sets forth or is submitted with information from which it can be determined that the telegram, cablegram or other means of electronic transmission was authorized by the stockholder.

2.15 LIST OF STOCKHOLDERS ENTITLED TO VOTE.

The officer who has charge of the stock ledger of the Corporation shall prepare and make, at least ten (10) days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. The Corporation shall not be required to include electronic mail addresses or other electronic contact information on such list. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting for a period of at least ten (10) days prior to the meeting: (i) on a reasonably accessible electronic network, provided that the information required to gain access to such list is provided with the notice of the meeting, or (ii) during ordinary business hours, at the Corporation's principal executive office. In the event that the Corporation determines to make the list available on an electronic network, the Corporation may take reasonable steps to ensure that such information is available only to stockholders of the Corporation. If the meeting is to be held at a place, then the list shall be produced and kept at the time and place of the meeting during the whole time thereof, and may be inspected by any stockholder who is present. If the meeting is to be held solely by means of remote communication, then the list shall also be open to the examination of any stockholder during the whole time of the meeting on a reasonably accessible electronic network, and the information required to access such list shall be provided with the notice of the meeting. Such list shall presumptively determine the identity of the stockholders entitled to vote at the meeting and the number of shares held by each of them.

2.16 INSPECTORS OF ELECTION.

Before any meeting of stockholders, the Board shall appoint an inspector or inspectors of election to act at the meeting or its adjournment and make a written report thereof. The number of inspectors shall be either one (1) or three (3). If any person appointed as inspector fails to appear or fails or refuses to act, then the chairperson of the meeting may, and upon the request of any stockholder or a stockholder's proxy shall, appoint a person to fill that vacancy.

Such inspectors shall:

(i) determine the number of shares outstanding and the voting power of each, the number of shares represented at the meeting, the existence of a quorum, and the authenticity, validity, and effect of proxies;

(ii) receive votes or ballots;

(iii) hear and determine all challenges and questions in any way arising in connection with the right to vote;

(iv) count and tabulate all votes;

(v) determine when the polls shall close;

(vi) determine the result; and

(vii) do any other acts that may be proper to conduct the election or vote with fairness to all stockholders.

The inspectors of election shall perform their duties impartially, in good faith, to the best of their ability and as expeditiously as is practical. If there are three (3) inspectors of election, the decision, act or certificate of a majority is effective in all respects as the decision, act or certificate of all. Any report or certificate made by the inspectors of election is prima facie evidence of the facts stated therein. The inspectors of election may appoint such persons to assist them in performing their duties as they determine.

ARTICLE III – DIRECTORS

3.1 POWERS.

Subject to the provisions of the DGCL and any limitations in the Certificate of Incorporation or these bylaws relating to action required to be approved by the stockholders or by the outstanding shares, the business and affairs of the Corporation shall be managed and all corporate powers shall be exercised by or under the direction of the Board.

3.2 NUMBER OF DIRECTORS.

The authorized number of directors shall be determined from time to time by resolution of the Board, provided the Board shall consist of at least one member. No reduction of the authorized number of directors shall have the effect of removing any director before that director's term of office expires.

3.3 ELECTION, QUALIFICATION AND TERM OF OFFICE OF DIRECTORS.

Except as provided in Section 3.4 of these bylaws, each director, including a director elected to fill a vacancy, shall hold office until the expiration of the term for which elected and until such director's successor is elected and qualified or until such director's earlier death, resignation or removal. Directors need not be stockholders unless so required by the Certificate of Incorporation or these bylaws. The Certificate of Incorporation or these bylaws may prescribe other qualifications for directors.

As provided in the Certificate of Incorporation, the directors of the Corporation shall be divided into three (3) classes.

3.4 RESIGNATION AND VACANCIES.

Any director may resign at any time upon notice given in writing or by electronic transmission to the Corporation. The resignation shall take effect at the time specified therein or upon the happening of an event specified therein, and if no time or event is specified, at the time of its receipt. When one or more directors so resigns and the resignation is effective at a future date or upon the happening of an event to occur on a future date, a majority of the directors then in office, including those who have so resigned, shall have power to fill such vacancy or vacancies, the vote thereon to take effect when such resignation or resignations shall become effective, and each director so chosen shall hold office as provided in this section in the filling of other vacancies.

Unless otherwise provided in the Certificate of Incorporation or these bylaws, vacancies and newly created directorships resulting from any increase in the authorized number of directors shall, be filled only by a majority of the directors then in office, although less than a quorum, or by a sole remaining director, unless the Board determines by resolution that any such vacancies or newly created directorships shall be filled by stockholders. Any director elected in accordance with the preceding sentence shall hold office for the remainder of the full term of the class, if any, to which the director is appointed and until such director's successor shall have been elected and qualified. A vacancy in the Board of Directors shall be deemed to exist under these bylaws in the case of the death, removal or resignation of any director.

3.5 PLACE OF MEETINGS; MEETINGS BY TELEPHONE.

The Board may hold meetings, both regular and special, either within or outside the State of Delaware.

Unless otherwise restricted by the Certificate of Incorporation or these bylaws, members of the Board, or any committee designated by the Board, may participate in a meeting of the Board, or any committee, by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and such participation in a meeting pursuant to this bylaw shall constitute presence in person at the meeting.

3.6 REGULAR MEETINGS.

Regular meetings of the Board may be held without notice at such time and at such place as shall from time to time be determined by the Board.

3.7 SPECIAL MEETINGS; NOTICE.

Special meetings of the Board for any purpose or purposes may be called at any time by the chairperson of the Board, the chief executive officer, the president, the secretary or a majority of the authorized number of directors.

Notice of the time and place of special meetings shall be:

(i) delivered personally by hand, by courier or by telephone;

(ii) sent by United States first-class mail, postage prepaid;

(iii) sent by facsimile; or

(iv) sent by electronic mail,

directed to each director at that director's address, telephone number, facsimile number or electronic mail address, as the case may be, as shown on the Corporation's records.

If the notice is (i) delivered personally by hand, by courier or by telephone, (ii) sent by facsimile or (iii) sent by electronic mail, it shall be delivered or sent at least twenty-four (24) hours before the time of the holding of the meeting. If the notice is sent by U.S. mail, it shall be deposited in the U.S. mail at least four (4) days before the time of the holding of the meeting. Any oral notice may be communicated to the director. The notice need not specify the place of the meeting (if the meeting is to be held at the Corporation's principal executive office) nor the purpose of the meeting.

3.8 QUORUM.

At all meetings of the Board, a majority of the authorized number of directors shall constitute a quorum for the transaction of business. The vote of a majority of the directors present at any meeting at which a quorum is present shall be the act of the Board, except as may be otherwise specifically provided by statute, the Certificate of Incorporation or these bylaws. If a quorum is not present at any meeting of the Board, then the directors present thereat may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum is present.

A meeting at which a quorum is initially present may continue to transact business notwithstanding the withdrawal of directors, if any action taken is approved by at least a majority of the required quorum for that meeting.

3.9 BOARD ACTION BY WRITTEN CONSENT WITHOUT A MEETING.

Unless otherwise restricted by the Certificate of Incorporation or these bylaws, any action required or permitted to be taken at any meeting of the Board, or of any committee thereof, may be taken without a meeting if all members of the Board or committee, as the case may be, consent thereto in writing or by electronic transmission and the writing or writings or electronic transmission or transmissions are filed with the minutes of proceedings of the Board or committee. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form.

3.10 FEES AND COMPENSATION OF DIRECTORS.

Unless otherwise restricted by the Certificate of Incorporation or these bylaws, the Board shall have the authority to fix the compensation of directors.

3.11 REMOVAL OF DIRECTORS.

Except as otherwise provided by the DGCL or the Certificate of Incorporation, the Board of Directors or any individual director may be removed from office at any time, but only with cause by the affirmative vote of the holders of at least sixty six and two thirds percent (66-2/3%) of the voting power of all the then outstanding shares of voting stock of the Corporation with the power to vote at an election of directors (the "Voting Stock").

No reduction of the authorized number of directors shall have the effect of removing any director prior to the expiration of such director's term of office.

ARTICLE IV – COMMITTEES

4.1 COMMITTEES OF DIRECTORS.

The Board may designate one (1) or more committees, each committee to consist of one (1) or more of the directors of the Corporation. The Board may designate one (1) or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not such member or members constitute a quorum, may unanimously appoint another member of the Board to act at the meeting in the place of any such absent or disqualified member. Any such committee, to the extent provided in the resolution of the Board or in these bylaws, shall have and may exercise all the powers and authority of the Board in the management of the business and affairs of the Corporation, and may authorize the seal of the Corporation to be affixed to all papers that may require it; but no such committee shall have the power or authority to (i) approve or adopt, or recommend to the stockholders, any action or matter expressly required by the DGCL to be submitted to stockholders for approval, or (ii) adopt, amend or repeal any bylaw of the Corporation.

4.2 COMMITTEE MINUTES.

Each committee shall keep regular minutes of its meetings and report the same to the Board when required.

4.3 MEETINGS AND ACTION OF COMMITTEES.

Meetings and actions of committees shall be governed by, and held and taken in accordance with, the provisions of:

(i) Section 3.5 (place of meetings and meetings by telephone);

(ii) Section 3.6 (regular meetings);

(iii) Section 3.7 (special meetings and notice);

(iv) Section 3.8 (quorum);

(v) Section 7.12 (waiver of notice); and

(vi) Section 3.9 (action without a meeting),

with such changes in the context of those bylaws as are necessary to substitute the committee and its members for the Board and its members. *However*:

(i) the time of regular meetings of committees may be determined either by resolution of the Board or by resolution of the committee;

(ii) special meetings of committees may also be called by resolution of the Board or the chairperson of the applicable committee;

(iii) notice of special meetings of committees shall also be given to all alternate members, who shall have the right to attend all meetings of the committee; and

(iv) the Board may adopt rules for the governance of any committee to override the provisions that would otherwise apply to the committee pursuant to this Section 4.3, provided that such rules do not violate the provisions of the Certificate of Incorporation or applicable law.

ARTICLE V – OFFICERS

5.1 OFFICERS.

The officers of the Corporation shall be a president and a secretary. The Corporation may also have, at the discretion of the Board, a chairperson of the Board, a vice chairperson of the Board, a chief executive officer, a chief financial officer or treasurer, one (1) or more vice presidents, one (1) or more assistant vice presidents, one (1) or more assistant treasurers, one (1) or more assistant secretaries, and any such other officers as may be appointed in accordance with the provisions of these bylaws. Any number of offices may be held by the same person.

5.2 APPOINTMENT OF OFFICERS.

The Board shall appoint the officers of the Corporation, except such officers as may be appointed in accordance with the provisions of Section 5.3 of these bylaws, subject to the rights, if any, of an officer under any contract of employment.

5.3 SUBORDINATE OFFICERS.

The Board may appoint, or empower the chief executive officer or, in the absence of a chief executive officer, the president, to appoint, such other officers and agents as the business of the Corporation may require. Each of such officers and agents shall hold office for such period, have such authority, and perform such duties as are provided in these bylaws or as the Board may from time to time determine.

5.4 REMOVAL AND RESIGNATION OF OFFICERS.

Subject to the rights, if any, of an officer under any contract of employment, any officer may be removed, either with or without cause, by an affirmative vote of the majority of the Board at any regular or special meeting of the Board or, except in the case of an officer chosen by the Board, by any officer upon whom such power of removal may be conferred by the Board.

Any officer may resign at any time by giving written notice to the Corporation. Any resignation shall take effect at the date of the receipt of that notice or at any later time specified in that notice. Unless otherwise specified in the notice of resignation, the acceptance of the resignation shall not be necessary to make it effective. Any resignation is without prejudice to the rights, if any, of the Corporation under any contract to which the officer is a party.

5.5 VACANCIES IN OFFICES.

Any vacancy occurring in any office of the Corporation shall be filled by the Board or as provided in Section 5.2.

5.6 REPRESENTATION OF SHARES OF OTHER CORPORATIONS.

The chairperson of the Board, the chief executive officer, the president, any vice president, the treasurer, the secretary or assistant secretary of this Corporation, or any other person authorized by the Board , the chief executive officer, the president or a vice president, is authorized to vote, represent and exercise on behalf of this Corporation all rights incident to any and all shares of any other corporation or corporations standing in the name of this Corporation. The authority granted herein may be exercised either by such person directly or by any other person authorized to do so by proxy or power of attorney duly executed by such person having the authority.

5.7 AUTHORITY AND DUTIES OF OFFICERS.

All officers of the Corporation shall respectively have such authority and perform such duties in the management of the business of the Corporation as may be designated from time to time by the Board or the stockholders and, to the extent not so provided, as generally pertain to their respective offices, subject to the control of the Board.

ARTICLE VI – RECORDS AND REPORTS

6.1 MAINTENANCE AND INSPECTION OF RECORDS.

The Corporation shall, either at its principal executive office or at such place or places as designated by the Board, keep a record of its stockholders listing their names and addresses and the number and class of shares held by each stockholder, a copy of these bylaws as amended to date, accounting books and other records.

Any stockholder of record, in person or by attorney or other agent, shall, upon written demand under oath stating the purpose thereof, have the right during the usual hours for business to inspect for any proper purpose the Corporation's stock ledger, a list of its stockholders, and its other books and records and to make copies or extracts therefrom. A proper purpose shall mean a purpose reasonably related to such person's interest as a stockholder. In every instance where an attorney or other agent is the person who seeks the right to inspection, the demand under oath shall be accompanied by a power of attorney or such other writing that authorizes the attorney or other agent so to act on behalf of the stockholder. The demand under oath shall be directed to the Corporation at its registered office in Delaware or at its principal executive office.

6.2 INSPECTION BY DIRECTORS.

Any director shall have the right to examine the Corporation's stock ledger, a list of its stockholders, and its other books and records for a purpose reasonably related to his or her position as a director. The Court of Chancery is hereby vested with the exclusive jurisdiction to determine whether a director is entitled to the inspection sought. The Court of Chancery may summarily order the Corporation to permit the director to inspect any and all books and records, the stock ledger, and the stock list and to make copies or extracts therefrom. The Court of Chancery may, in its discretion, prescribe any limitations or conditions with reference to the inspection, or award such other and further relief as the Court of Chancery may deem just and proper.

ARTICLE VII – GENERAL MATTERS

7.1 EXECUTION OF CORPORATE CONTRACTS AND INSTRUMENTS.

The Board, except as otherwise provided in these bylaws, may authorize any officer or officers, or agent or agents, to enter into any contract or execute any instrument in the name of and on behalf of the Corporation; such authority may be general or confined to specific instances. Unless so authorized or ratified by the Board or within the agency power of an officer, no officer, agent or employee shall have any power or authority to bind the Corporation by any contract or engagement or to pledge its credit or to render it liable for any purpose or for any amount.

7.2 STOCK CERTIFICATES; PARTLY PAID SHARES.

The shares of the Corporation shall be represented by certificates or shall be uncertificated. Certificates for the shares of stock, if any, shall be in such form as is consistent with the Certificate of Incorporation and applicable law. Every holder of stock represented by a certificate shall be entitled to have a certificate signed by, or in the name of the Corporation by the chairperson or vice-chairperson of the Board, or the president or vice-president, and by the treasurer or an assistant treasurer, or the secretary or an assistant secretary of the Corporation representing the number of shares registered in certificate form. Any or all of the signatures on the certificate may be a facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate has ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by the Corporation with the same effect as if he or she were such officer, transfer agent or registrar at the date of issue.

The Corporation may issue the whole or any part of its shares as partly paid and subject to call for the remainder of the consideration to be paid therefor. Upon the face or back of each stock certificate issued to represent any such partly paid shares, upon the books and records of the Corporation in the case of uncertificated partly paid shares, the total amount of the consideration to be paid therefor and the amount paid thereon shall be stated. Upon the declaration of any dividend on fully paid shares, the Corporation shall declare a dividend upon partly paid shares of the same class, but only upon the basis of the percentage of the consideration actually paid thereon.

7.3 SPECIAL DESIGNATION ON CERTIFICATES.

If the Corporation is authorized to issue more than one class of stock or more than one series of any class, then the powers, the designations, the preferences and the relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights shall be set forth in full or summarized on the face or back of the certificate that the Corporation shall issue to represent such class or series of stock; *provided, however*, that, except as otherwise provided in Section 202 of the DGCL, in lieu of the foregoing requirements, there may be set forth on the face or back of the certificate that the Corporation shall issue to represent such class or series of stock a statement that the Corporation will furnish without charge to each stockholder who so requests the powers, the designations, the preferences and the relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights.

7.4 LOST CERTIFICATES.

Except as provided in this Section 7.4, no new certificates for shares shall be issued to replace a previously issued certificate unless the latter is surrendered to the Corporation and cancelled at the same time. The Corporation may issue a new certificate of stock or uncertificated shares in the place of any certificate theretofore issued by it, alleged to have been lost, stolen or destroyed, and the Corporation may require the owner of the lost, stolen or destroyed certificate, or such owner’s legal representative, to give the Corporation a bond sufficient to indemnify it against any claim that may be made against it on account of the alleged loss, theft or destruction of any such certificate or the issuance of such new certificate or uncertificated shares.

7.5 CONSTRUCTION; DEFINITIONS.

Unless the context requires otherwise, the general provisions, rules of construction and definitions in the DGCL shall govern the construction of these bylaws. Without limiting the generality of this provision, the singular number includes the plural, the plural number includes the singular, and the term "person" includes both a corporation and a natural person.

7.6 DIVIDENDS.

The Board, subject to any restrictions contained in either (i) the DGCL or (ii) the Certificate of Incorporation, may declare and pay dividends upon the shares of its capital stock. Dividends may be paid in cash, in property or in shares of the Corporation's capital stock.

The Board may set apart out of any of the funds of the Corporation available for dividends a reserve or reserves for any proper purpose and may abolish any such reserve. Such purposes shall include but not be limited to equalizing dividends, repairing or maintaining any property of the Corporation, and meeting contingencies.

7.7 FISCAL YEAR.

The fiscal year of the Corporation shall be fixed by resolution of the Board and may be changed by the Board.

7.8 SEAL.

The Corporation may adopt a corporate seal, which shall be adopted and which may be altered by the Board. The Corporation may use the corporate seal by causing it or a facsimile thereof to be impressed or affixed or in any other manner reproduced.

7.9 TRANSFER OF STOCK.

Shares of the Corporation shall be transferable in the manner prescribed by law and in these bylaws. Shares of stock of the Corporation shall be transferred on the books of the Corporation only by the holder of record thereof or by such holder's attorney duly authorized in writing, upon surrender to the Corporation of the certificate or certificates representing such shares endorsed by the appropriate person or persons (or by delivery of duly executed instructions with respect to uncertificated shares), with such evidence of the authenticity of such endorsement or execution, transfer, authorization and other matters as the Corporation may reasonably require, and accompanied by all necessary stock transfer stamps. No transfer of stock shall be valid as against the Corporation for any purpose until it shall have been entered in the stock records of the Corporation by an entry showing the names of the persons from and to whom it was transferred.

7.10 STOCK TRANSFER AGREEMENTS.

The Corporation shall have power to enter into and perform any agreement with any number of stockholders of any one or more classes of stock of the Corporation to restrict the transfer of shares of stock of the Corporation of any one or more classes owned by such stockholders in any manner not prohibited by the DGCL.

7.11 REGISTERED STOCKHOLDERS.

The Corporation:

(i) shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends and to vote as such owner;

(ii) shall be entitled to hold liable for calls and assessments the person registered on its books as the owner of shares; and

(iii) shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of another person, whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of Delaware.

7.12 WAIVER OF NOTICE.

Whenever notice is required to be given under any provision of the DGCL, the Certificate of Incorporation or these bylaws, a written waiver, signed by the person entitled to notice, or a waiver by electronic transmission by the person entitled to notice, whether before or after the time of the event for which notice is to be given, shall be deemed equivalent to notice. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the stockholders need be specified in any written waiver of notice or any waiver by electronic transmission unless so required by the Certificate of Incorporation or these bylaws.

ARTICLE VIII – NOTICE BY ELECTRONIC TRANSMISSION

8.1 NOTICE BY ELECTRONIC TRANSMISSION.

Without limiting the manner by which notice otherwise may be given effectively to stockholders pursuant to the DGCL, the Certificate of Incorporation or these bylaws, any notice to stockholders given by the Corporation under any provision of the DGCL, the Certificate of Incorporation or these bylaws shall be effective if given by a form of electronic transmission consented to by the stockholder to whom the notice is given. Any such consent shall be revocable by the stockholder by written notice to the Corporation. Any such consent shall be deemed revoked if:

(i) the Corporation is unable to deliver by electronic transmission two (2) consecutive notices given by the Corporation in accordance with such consent; and

(ii) such inability becomes known to the secretary or an assistant secretary of the Corporation or to the transfer agent, or other person responsible for the giving of notice.

However, the inadvertent failure to treat such inability as a revocation shall not invalidate any meeting or other action.

Any notice given pursuant to the preceding paragraph shall be deemed given:

(i) if by facsimile telecommunication, when directed to a number at which the stockholder has consented to receive notice;

(ii) if by electronic mail, when directed to an electronic mail address at which the stockholder has consented to receive notice;

(iii) if by a posting on an electronic network together with separate notice to the stockholder of such specific posting, upon the later of (A) such posting and (B) the giving of such separate notice; and

(iv) if by any other form of electronic transmission, when directed to the stockholder.

An affidavit of the secretary or an assistant secretary or of the transfer agent or other agent of the Corporation that the notice has been given by a form of electronic transmission shall, in the absence of fraud, be prima facie evidence of the facts stated therein.

8.2 DEFINITION OF ELECTRONIC TRANSMISSION.

An "electronic transmission" means any form of communication, not directly involving the physical transmission of paper, including the use of, or participation in, one or more electronic networks or databases (including one or more distributed electronic networks or databases), that creates a record that may be retained, retrieved and reviewed by a recipient thereof, and that may be directly reproduced in paper form by such a recipient through an automated process.

ARTICLE IX – INDEMNIFICATION

9.1 INDEMNIFICATION OF DIRECTORS AND OFFICERS.

The Corporation shall indemnify and hold harmless, to the extent permitted by the DGCL as it presently exists or may hereafter be amended, any director or officer of the Corporation who was or is made or is threatened to be made a party or is otherwise involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative (a "Proceeding") by reason of the fact that he or she, or a person for whom he or she is the legal representative, is or was a director or officer of the Corporation or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust, enterprise or non-profit entity, including service with respect to employee benefit plans, against all liability and loss suffered and expenses (including attorneys' fees, judgments, fines ERISA excise taxes or penalties and amounts paid in settlement) reasonably incurred by such person in connection with any such Proceeding. Notwithstanding the preceding sentence, except as otherwise provided in Section 9.4, the Corporation shall be required to indemnify a person in connection with a Proceeding initiated by such person only if the Proceeding was authorized in the specific case by the Board.

9.2 INDEMNIFICATION OF OTHERS.

The Corporation shall have the power to indemnify and hold harmless, to the extent permitted by applicable law as it presently exists or may hereafter be amended, any employee or agent of the Corporation who was or is made or is threatened to be made a party or is otherwise involved in any Proceeding by reason of the fact that he or she, or a person for whom he or she is the legal representative, is or was an 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 or of a partnership, joint venture, trust, enterprise or non-profit entity, including service with respect to employee benefit plans, against all liability and loss suffered and expenses reasonably incurred by such person in connection with any such Proceeding.

9.3 PREPAYMENT OF EXPENSES.

The Corporation shall to the fullest extent not prohibited by applicable law pay the expenses (including attorneys' fees) incurred by any officer or director of the Corporation, and may pay the expenses incurred by any employee or agent of the Corporation, in defending any Proceeding in advance of its final disposition; *provided, however*, that, to the extent required by law, such payment

of expenses in advance of the final disposition of the Proceeding shall be made only upon receipt of an undertaking by the person to repay all amounts advanced if it should be ultimately determined that the person is not entitled to be indemnified under this Article IX or otherwise.

9.4 DETERMINATION; CLAIM.

If a claim for indemnification (following the final disposition of such Proceeding) under this Article IX is not paid in full within sixty (60) days, or a claim for advancement of expenses under this Article IX is not paid in full within thirty (30) days, after a written claim therefor has been received by the Corporation the claimant may thereafter (but not before) file suit to recover the unpaid amount of such claim and, if successful in whole or in part, shall be entitled to be paid the expense of prosecuting such claim to the fullest extent permitted by law. In any such action the Corporation shall have the burden of proving that the claimant was not entitled to the requested indemnification or payment of expenses under applicable law.

9.5 NON-EXCLUSIVITY OF RIGHTS.

The rights conferred on any person by this Article IX shall not be exclusive of any other rights which such person may have or hereafter acquire under any statute, provision of the Certificate of Incorporation, these bylaws, agreement, vote of stockholders or disinterested directors or otherwise.

9.6 INSURANCE.

The Corporation may purchase and maintain insurance on behalf of any person who 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 enterprise or non-profit entity against any liability asserted against him or her and incurred by him or her in any such capacity, or arising out of his or her status as such, whether or not the Corporation would have the power to indemnify him or her against such liability under the provisions of the DGCL.

9.7 OTHER INDEMNIFICATION.

The Corporation’s obligation, if any, to indemnify or advance expenses to any person who was or is serving at its request as a director, officer, employee or agent of another corporation, partnership, joint venture, trust, enterprise or non-profit entity shall be reduced by any amount such person may collect as indemnification or advancement of expenses from such other corporation, partnership, joint venture, trust, enterprise or non-profit enterprise.

9.8 CONTINUATION OF INDEMNIFICATION.

The rights to indemnification and to prepayment of expenses provided by, or granted pursuant to, this Article IX shall continue notwithstanding that the person has ceased to be a director or officer of the Corporation and shall inure to the benefit of the estate, heirs, executors, administrators, legatees and distributees of such person.

9.9 AMENDMENT OR REPEAL.

The provisions of this Article IX shall constitute a contract between the Corporation, on the one hand, and, on the other hand, each individual who serves or has served as a director or officer of the Corporation (whether before or after the adoption of these bylaws), in consideration of such person's performance of such services, and pursuant to this Article IX the Corporation intends to be legally bound to each such current or former director or officer of the Corporation. With respect to current and former directors and officers of the Corporation, the rights conferred under this Article IX are present contractual rights and such rights are fully vested, and shall be deemed to have vested fully, immediately upon adoption of theses bylaws. With respect to any directors or officers of the Corporation who commence service following adoption of these bylaws, the rights conferred under this provision shall be present contractual rights and such rights shall fully vest, and be deemed to have vested fully, immediately upon such director or officer commencing service as a director or officer of the Corporation. Any repeal or modification of the foregoing provisions of this Article IX shall not adversely affect any right or protection (i) hereunder of any person in respect of any act or omission occurring prior to the time of such repeal or modification or (ii) under any agreement providing for indemnification or advancement of expenses to an officer or director of the Corporation in effect prior to the time of such repeal or modification.

ARTICLE X – AMENDMENTS

Subject to the limitations set forth in Section 9.9 of these bylaws or the provisions of the Certificate of Incorporation, the Board is expressly empowered to adopt, amend or repeal the bylaws of the Corporation. Any adoption, amendment or repeal of the bylaws of the Corporation by the Board shall require the approval of a majority of the authorized number of directors. The stockholders also shall have power to adopt, amend or repeal the bylaws of the Corporation; *provided, however*, that, in addition to any vote of the holders of any class or series of stock of the Corporation required by law or by the Certificate of Incorporation, such action by stockholders shall require the affirmative vote of the holders of at least sixty-six and two-thirds percent (66-2/3%) of the voting power of all of the then-outstanding shares of the Voting Stock.

ARTICLE XI – FORUM SELECTION

Unless the Corporation consents in writing to the selection of an alternative forum, the Court of Chancery (the "Chancery Court") of the State of Delaware (or, in the event that the Chancery Court does not have jurisdiction, the federal district court for the District of Delaware or other state courts of the State of Delaware) shall, to the fullest extent permitted by law, be the sole and exclusive forum for (i) any derivative action or proceeding brought on behalf of the Corporation, (ii) any action asserting a claim of breach of a fiduciary duty owed by any director, officer or stockholder of the Corporation to the Corporation or to the Corporation's stockholders, (iii) any action arising pursuant to any provision of the DGCL or the Certificate of Incorporation or these

bylaws (as either may be amended from time to time) or (iv) any action asserting a claim against the Corporation governed by the internal affairs doctrine. If any action the subject matter of which is within the scope of the preceding sentence is filed in a court other than a court located within the State of Delaware (a "Foreign Action") in the name of any stockholder, such stockholder shall be deemed to have consented to (a) the Personal jurisdiction of the state and federal courts located within the State of Delaware in connection with any action brought in any such court to enforce the preceding sentence and (b) having service of process made upon such stockholder in any such action by service upon such stockholder's counsel in the Foreign Action as agent for such stockholder.

* * * * *

GRITSTONE ONCOLOGY, INC.

CERTIFICATE OF AMENDMENT AND RESTATEMENT OF BYLAWS

The undersigned hereby certifies that he or she is the duly elected, qualified, and acting Secretary of Gritstone Oncology, Inc., a Delaware corporation, and that the foregoing bylaws were amended and restated on _____, 201__ by the Corporation's board of directors.

IN WITNESS WHEREOF, the undersigned has hereunto set his or her hand this _____ day of _____, 201__.

Alan C. Mendelson
Secretary

NUMBER
GO

gritstone ONCOLOGY

SHARES

CUSIP 39868T 10 5

INCORPORATED UNDER THE LAWS OF THE STATE OF DELAWARE

SEE REVERSE FOR CERTAIN DEFINITIONS AND LEGENDS

This certifies that

is the record holder of

FULLY PAID AND NONASSESSABLE SHARES OF COMMON STOCK, $0.0001 PAR VALUE PER SHARE, OF

GRITSTONE ONCOLOGY, INC.

transferable on the books of the corporation in person or by duly authorized attorney upon surrender of this Certificate properly endorsed. This Certificate is not valid until countersigned by the Transfer Agent and registered by the Registrar.

WITNESS the facsimile seal of the Corporation and the facsimile signatures of its duly authorized officers.

Dated:

PRESIDENT

GRITSTONE ONCOLOGY, INC. CORPORATE SEAL AUGUST 5, 2015 DELAWARE

SECRETARY

COUNTERSIGNED AND REGISTERED:
AMERICAN STOCK TRANSFER & TRUST COMPANY, LLC
(BROOKLYN, NY)
TRANSFER AGENT AND REGISTRAR

BY:

AUTHORIZED SIGNATURE

CERTIFICATE OF STOCK

HERITAGE BANK NOTE

The Corporation shall furnish without charge to each stockholder who so requests a statement of the powers, designations, preferences and relative, participating, optional or other special rights of each class of stock of the Corporation or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights. Such requests shall be made to the Corporation's Secretary at the principal office of the Corporation.

KEEP THIS CERTIFICATE IN A SAFE PLACE. IF IT IS LOST, STOLEN, OR DESTROYED THE CORPORATION WILL REQUIRE A BOND INDEMNITY AS A CONDITION TO THE ISSUANCE OF A REPLACEMENT 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
TEN ENT	–	as tenants by the entireties
JT TEN	–	as joint tenants with right of survivorship and not as tenants in common
COM PROP	–	as community property

UNIF GIFT MIN ACT – _____ (Cust) Custodian _____ (Minor) under Uniform Gifts to Minors Act _____ (State)

UNIF TRF MIN ACT – _____ (Cust) Custodian (until age____) _____ (Minor) under Uniform Transfers to Minors Act _____ (State)

Additional abbreviations may also be used though not in the above list.

FOR VALUE RECEIVED, _____ hereby sell(s), assign(s) and transfer(s) unto

PLEASE INSERT SOCIAL SECURITY OR OTHER IDENTIFYING NUMBER OF ASSIGNEE

_____

(PLEASE PRINT OR TYPEWRITE NAME AND ADDRESS, INCLUDING ZIP CODE, OF ASSIGNEE)

_____

_____

_____

_____shares
of the capital stock represented by within Certificate, and do hereby irrevocably constitute and appoint

_____attorney-in-fact to transfer the said stock on the books of the within named Corporation with full power of the substitution in the premises.

Dated _____

X_____

X_____

Signature(s) Guaranteed:

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 WHATSOEVER.

By _____

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 17Ad-15. GUARANTEES BY A NOTARY PUBLIC ARE NOT ACCEPTABLE. SIGNATURE GUARANTEES MUST NOT BE DATED.

Exhibit 5.1

140 Scott Drive
Menlo Park, California 94025
Tel: +1.650.328.4600 Fax: +1.650.463.2600
www.lw.com

LATHAM & WATKINS LLP

September 17, 2018

Gritstone Oncology, Inc.
5858 Horton Street, Suite 210
Emeryville, CA 94608

Re: Form S-1 Registration Statement File No. 333-226976
Initial Public Offering of up to 6,982,142 Shares of Common Stock
of Gritstone Oncology, Inc.

Ladies and Gentlemen:

We have acted as special counsel to Gritstone Oncology, Inc., a Delaware corporation (the "***Company***"), in connection with the proposed issuance of up to 6,982,142 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 August 23, 2018 (Registration No. 333-226976) (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

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

GRITSTONE ONCOLOGY, 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 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 Unit 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***" means any 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 the Company's securities 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);

(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;

(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 2.6(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 Gritstone Oncology, 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 "***DRO***" means a "domestic relations order" as defined by the Code or Title I of the Employee Retirement Income Security Act of 1974, as amended, or the rules thereunder.

2.17 "***Effective Date***" has the meaning set forth in Section 11.3.

2.18 "***Employee***" means any employee of the Company or any of its Subsidiaries.

2.19 "***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.

2.20 "***Exchange Act***" means the U.S. Securities Exchange Act of 1934, as amended, and all regulations, guidance and other interpretative authority issued thereunder.

2.21 "***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 means 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.

2.22 "***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.

2.23 "***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.

2.24 "***Incumbent Directors"*** means, 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.

2.25 "***Nonqualified Stock Option***" means an Option that is not an Incentive Stock Option.

2.26 "***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.

2.27 "***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.

2.28 "***Overall Share Limit***" means the sum of (i) 2,690,000 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) 4% 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.

2.29 "***Participant***" means a Service Provider who has been granted an Award.

2.30 "***Performance Bonus Award***" has the meaning set forth in Section 8.3.

2.31 "***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.

2.32 "***Permitted Transferee***" means, 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.

2.33 "***Plan***" means this 2018 Incentive Award Plan.

2.34 "***Prior Plan***" means the Company's 2015 Equity Incentive Plan.

2.35 "***Prior Plan Award***" means an award outstanding under the Prior Plan as of the Effective Date.

2.36 "***Public Trading Date***" means 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.

2.37 "***Restricted Stock***" means Shares awarded to a Participant under Article VII, subject to certain vesting conditions and other restrictions.

2.38 "***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.

2.39 "***Rule 16b-3***" means Rule 16b-3 promulgated under the Exchange Act.

2.40 "***Section 409A***" means Section 409A of the Code.

2.41 "***Securities Act***" means the Securities Act of 1933, as amended, and all regulations, guidance and other interpretative authority issued thereunder.

2.42 "***Service Provider***" means an Employee, Consultant or Director.

2.43 "***Shares***" means shares of Common Stock.

2.44 "***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.

2.45 "***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.

2.46 "***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.

2.47 "***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; and (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. 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 45,000,000 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 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 Unit 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 Unit award shall be denominated in a number of Shares or in unit equivalents of Shares 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(a) . 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 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 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 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 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) 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; 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 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 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 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, without regard to the conflict of law rules thereof or of any other jurisdiction.

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.

GRITSTONE ONCOLOGY, INC.
2018 INCENTIVE AWARD PLAN
STOCK OPTION GRANT NOTICE

Gritstone Oncology, Inc., a Delaware corporation, (the "***Company***"), pursuant to its 2018 Incentive Award Plan, as may be amended from time to time (the "***Plan***"), hereby grants to the holder listed below ("***Participant***"), an option to purchase the number of shares of the Company's Common Stock (the "***Shares***"), set forth below (the "***Option***"). This Option is subject to all of the terms and conditions set forth herein, as well as in the Plan and the Stock Option Agreement attached hereto as **Exhibit A** (the "***Stock Option Agreement***"), each of which are incorporated herein by reference. Unless otherwise defined herein, the terms defined in the Plan shall have the same defined meanings in this Grant Notice and the Stock Option Agreement.

Participant:	[_____]
Grant Date:	[_____]
Vesting Commencement Date:	[_____]
Exercise Price per Share:	$[_____]
Total Exercise Price:	[_____]
Total Number of Shares Subject to the Option:	[_____]
Expiration Date:	[_____]
Vesting Schedule:	[_____]

Type of Option: ☐ Incentive Stock Option ☐ Nonqualified Stock Option

By his or her signature and the Company's signature below, Participant agrees to be bound by the terms and conditions of the Plan, the Stock Option Agreement and this Grant Notice. Participant has reviewed the Plan, the Stock Option Agreement and this Grant Notice in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Grant Notice and fully understands all provisions of the Plan, the Stock Option Agreement and this Grant Notice. Participant hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Administrator upon any questions arising under the Plan, the Stock Option Agreement or this Grant Notice.

GRITSTONE ONCOLOGY, INC.:		**PARTICIPANT:**	
By:	_____	By:	_____
Print Name:	_____	Print Name:	_____
Title:	_____		
Address:	_____	Address:	_____
	_____		_____

EXHIBIT A
TO STOCK OPTION GRANT NOTICE

STOCK OPTION AGREEMENT

Pursuant to the Stock Option Grant Notice (the "***Grant Notice***") to which this Stock Option Agreement (this "***Agreement***") is attached, Gritstone Oncology, Inc., a Delaware corporation (the "***Company***"), has granted to the Participant an Option under the Company's 2018 Incentive Award Plan, as may be amended from time to time (the "***Plan***"), to purchase the number of Shares indicated in the Grant Notice.

ARTICLE 1.

GENERAL

1.1 Defined Terms. Capitalized terms not specifically defined herein shall have the meanings specified in the Plan and the Grant Notice.

1.2 Incorporation of Terms of Plan. The Option is subject to the terms and conditions of the Plan which are incorporated herein by reference. In the event of any inconsistency between the Plan and this Agreement, the terms of the Plan shall control.

ARTICLE 2.

GRANT OF OPTION

2.1 Grant of Option. In consideration of the Participant's past or continued employment with or service to the Company or any Subsidiary and for other good and valuable consideration, effective as of the Grant Date set forth in the Grant Notice (the "***Grant Date***"), the Company irrevocably grants to the Participant the Option to purchase any part or all of an aggregate of the number of Shares set forth in the Grant Notice, upon the terms and conditions set forth in the Plan and this Agreement, subject to adjustments as provided in Article IX of the Plan. Unless designated as a Nonqualified Stock Option in the Grant Notice, the Option shall be an Incentive Stock Option to the maximum extent permitted by law.

2.2 Exercise Price. The exercise price of the Shares subject to the Option shall be as set forth in the Grant Notice, without commission or other charge; *provided*, *however*, that the price per share of the Shares subject to the Option shall not be less than 100% of the Fair Market Value of a Share on the Grant Date. Notwithstanding the foregoing, if this Option is designated as an Incentive Stock Option and the Participant is a Greater Than 10% Stockholder as of the Grant Date, the exercise price per share of the Shares subject to the Option shall not be less than 110% of the Fair Market Value of a Share on the Grant Date.

2.3 Consideration to the Company. In consideration of the grant of the Option by the Company, the Participant agrees to render faithful and efficient services to the Company or any Subsidiary. Nothing in the Plan or this Agreement shall confer upon the Participant any right to continue in the employ or service of the Company or any Subsidiary or shall interfere with or restrict in any way the rights of the Company and its Subsidiaries, which rights are hereby expressly reserved, to discharge or terminate the services of the Participant at any time for any reason whatsoever, with or without cause, except to the extent expressly provided otherwise in a written agreement between the Company or a Subsidiary and the Participant.

ARTICLE 3.

PERIOD OF EXERCISABILITY

3.1 Commencement of Exercisability.

(a) Subject to Sections 3.2, 3.3, 5.11 and 5.17 hereof, the Option shall become vested and exercisable in such amounts and at such times as are set forth in the Grant Notice.

(b) No portion of the Option which has not become vested and exercisable at the date of the Participant's Termination of Service shall thereafter become vested and exercisable, except as may be otherwise provided by the Administrator or as set forth in a written agreement between the Company and the Participant.

(c) Notwithstanding Section 3.1(a) hereof and the Grant Notice, but subject to Section 3.1(b) hereof, in the event of a Change in Control the Option shall be treated pursuant to Sections 9.2 and 9.3 of the Plan.

3.2 Duration of Exercisability. The installments provided for in the vesting schedule set forth in the Grant Notice are cumulative. Each such installment which becomes vested and exercisable pursuant to the vesting schedule set forth in the Grant Notice shall remain vested and exercisable until it becomes unexercisable under Section 3.3 hereof.

3.3 Expiration of Option. The Option may not be exercised to any extent by anyone after the first to occur of the following events:

(a) The Expiration Date set forth in the Grant Notice, which shall in no event be more than ten years from the Grant Date;

(b) If this Option is designated as an Incentive Stock Option and the Participant, at the time the Option was granted, was a Greater Than 10% Stockholder, the expiration of five years from the Grant Date;

(c) The expiration of three months from the date of the Participant's Termination of Service, unless such termination occurs by reason of the Participant's death or Disability; or

(d) The expiration of one year from the date of the Participant's Termination of Service by reason of the Participant's death or Disability.

3.4 Special Tax Consequences. The Participant acknowledges that, to the extent that the aggregate Fair Market Value (determined as of the time the Option is granted) of all Shares with respect to which Incentive Stock Options, including the Option (if applicable), are exercisable for the first time by the Participant in any calendar year exceeds $100,000, the Option and such other options shall be Nonqualified Stock Options to the extent necessary to comply with the limitations imposed by Section 422(d) of the Code. The Participant further acknowledges that the rule set forth in the preceding sentence shall be applied by taking the Option and other "incentive stock options" into account in the order in which they were granted, as determined under Section 422(d) of the Code and the Treasury Regulations thereunder. The Participant also acknowledges that an Incentive Stock Option exercised more than three months after the Participant's Termination of Employment, other than by reason of death or Disability, will be taxed as a Nonqualified Stock Option.

3.5 Tax Indemnity.

(a) The Participant agrees to indemnify and keep indemnified the Company, any Subsidiary and the Participant's employing company, if different, from and against any liability for or obligation to pay any Tax Liability (a "***Tax Liability***" being any liability for income tax, withholding tax and any other employment related taxes or social security contributions in any jurisdiction) that is attributable to (1) the grant or exercise of, or any benefit derived by the Participant from, the Option, (2) the acquisition by the Participant of the Shares on exercise of the Option or (3) the disposal of any Shares.

(b) The Option cannot be exercised until the Participant has made such arrangements as the Company may require for the satisfaction of any Tax Liability that may arise in connection with the exercise of the Option or the acquisition of the Shares by the Participant. The Company shall not be required to issue, allot or transfer Shares until the Participant has satisfied this obligation.

(c) The Participant hereby acknowledges that the Company (i) makes no representations or undertakings regarding the treatment of any Tax Liabilities in connection with any aspect of the Option and (ii) does not commit to and is under no obligation to structure the terms of the grant or any aspect of any Award, including the Option, to reduce or eliminate the Participant's liability for Tax Liabilities or achieve any particular tax result. Furthermore, if the Participant becomes subject to tax in more than one jurisdiction between the date of grant of an Award, including the Option, and the date of any relevant taxable event, the Participant acknowledges that the Company may be required to withhold or account for Tax Liabilities in more than one jurisdiction.

ARTICLE 4.

EXERCISE OF OPTION

4.1 Person Eligible to Exercise. Except as provided in Section 5.3 hereof, during the lifetime of the Participant, only the Participant may exercise the Option or any portion thereof, unless it has been disposed of pursuant to a DRO. After the death of the Participant, any exercisable portion of the Option may, prior to the time when the Option becomes unexercisable under Section 3.3 hereof, be exercised by the deceased the Participant's personal representative or by any person empowered to do so under the deceased the Participant's will or under the then applicable laws of descent and distribution.

4.2 Partial Exercise. Any exercisable portion of the Option or the entire Option, if then wholly exercisable, may be exercised in whole or in part at any time prior to the time when the Option or portion thereof becomes unexercisable under Section 3.3 hereof. However, the Option shall not be exercisable with respect to fractional Shares.

4.3 Manner of Exercise. The Option, or any exercisable portion thereof, may be exercised solely by delivery to the Secretary of the Company (or any third party administrator or other person or entity designated by the Company; for the avoidance of doubt, delivery shall include electronic delivery), during regular business hours, of all of the following prior to the time when the Option or such portion thereof becomes unexercisable under Section 3.3 hereof:

(a) An exercise notice in a form specified by the Administrator, stating that the Option or portion thereof is thereby exercised, such notice complying with all applicable rules established by the Administrator. The notice shall be signed by the Participant or other person then entitled to exercise the Option or such portion of the Option;

(b) The receipt by the Company of full payment for the Shares with respect to which the Option or portion thereof is exercised, including payment of any applicable withholding tax, which shall be made by deduction from other compensation payable to the Participant or in such other form of consideration permitted under Section 4.4 hereof that is acceptable to the Company;

(c) Any other written representations or documents as may be required in the Administrator's sole discretion to evidence compliance with the Securities Act, the Exchange Act or any other applicable law, rule or regulation; and

(d) In the event the Option or portion thereof shall be exercised pursuant to Section 4.1 hereof by any person or persons other than the Participant, appropriate proof of the right of such person or persons to exercise the Option.

Notwithstanding any of the foregoing, the Company shall have the right to specify all conditions of the manner of exercise, which conditions may vary by country and which may be subject to change from time to time.

4.4 Method of Payment. Payment of the exercise price shall be by any of the following, or a combination thereof, at the election of the Participant:

(a) Cash or check;

(b) With the consent of the Administrator, surrender of Shares (including, without limitation, Shares otherwise issuable upon exercise of the Option) held for such period of time as may be required by the Administrator in order to avoid adverse accounting consequences and having a Fair Market Value on the date of delivery equal to the aggregate exercise price of the Option or exercised portion thereof; or

(c) Other legal consideration acceptable to the Administrator (including, without limitation, through the delivery of a notice that the Participant has placed a market sell order with a broker with respect to Shares then issuable upon exercise of the Option, and that the broker has been directed to pay a sufficient portion of the net proceeds of the sale to the Company in satisfaction of the Option exercise price; *provided* that payment of such proceeds is then made to the Company at such time as may be required by the Company, but in any event not later than the settlement of such sale).

4.5 Conditions to Issuance of Shares. The Shares deliverable upon the exercise of the Option, or any portion thereof, may be either previously authorized but unissued Shares or issued Shares which have then been reacquired by the Company. Such Shares shall be fully paid and nonassessable. The Company shall not be required to issue or deliver any Shares purchased upon the exercise of the Option or portion thereof prior to fulfillment of all of the conditions in Section 10.7 of the Plan and following conditions:

(a) The admission of such Shares to listing on all stock exchanges on which such Shares are then listed;

(b) The completion of any registration or other qualification of such Shares under any state or federal law or under rulings or regulations of the Securities and Exchange Commission or of any other governmental regulatory body, which the Administrator shall, in its absolute discretion, deem necessary or advisable;

(c) The obtaining of any approval or other clearance from any state or federal governmental agency which the Administrator shall, in its absolute discretion, determine to be necessary or advisable;

(d) The receipt by the Company of full payment for such Shares, including payment of any applicable withholding tax, which may be in one or more of the forms of consideration permitted under Section 4.4 hereof; and

(e) The lapse of such reasonable period of time following the exercise of the Option as the Administrator may from time to time establish for reasons of administrative convenience.

4.6 Rights as Stockholder. The holder of the Option shall not be, nor have any of the rights or privileges of, a stockholder of the Company, including, without limitation, voting rights and rights to dividends, in respect of any Shares purchasable upon the exercise of any part of the Option unless and until such Shares shall have been issued by the Company and held of record by such holder (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company). No adjustment will be made for a dividend or other right for which the record date is prior to the date the Shares are issued, except as provided in Article IX of the Plan.

ARTICLE 5.

OTHER PROVISIONS

5.1 Administration. The Administrator shall have the power to interpret the Plan and this Agreement 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. All actions taken and all interpretations and determinations made by the Administrator in good faith shall be final and binding upon the Participant, the Company and all other interested persons. No member of the Committee or the Board shall be personally liable for any action, determination or interpretation made in good faith with respect to the Plan, this Agreement or the Option.

5.2 Whole Shares. The Option may only be exercised for whole Shares.

5.3 Option Not Transferable.

(a) Subject to Section 4.1 hereof, the Option may not be sold, pledged, assigned or transferred in any manner other than by will or the laws of descent and distribution or, subject to the consent of the Administrator, pursuant to a DRO, unless and until the Option has been exercised and the Shares underlying the Option have been issued, and all restrictions applicable to such Shares have lapsed. Neither the Option nor any interest or right therein shall be liable for the debts, contracts or engagements of the Participant or his or her successors in interest or shall be subject to disposition by transfer, alienation, anticipation, pledge, hypothecation, 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) unless and until the Option has been exercised, and any attempted disposition thereof prior to exercise shall be null and void and of no effect, except to the extent that such disposition is permitted by the preceding sentence.

(b) During the lifetime of the Participant, only the Participant may exercise the Option (or any portion thereof), unless it has been disposed of pursuant to a DRO; after the death of the Participant, any exercisable portion of the Option may, prior to the time when such portion becomes unexercisable under the Plan or this Agreement, be exercised by the Participant's personal representative or by any person empowered to do so under the deceased the Participant's will or under the then-applicable laws of descent and distribution.

(c) Notwithstanding any other provision in this Agreement, the Participant may, in the manner determined by the Administrator, designate a beneficiary to exercise the rights of the Participant and to receive any distribution with respect to the Option upon the Participant's death. A 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 this Agreement, except to the extent the Plan and this Agreement otherwise provide, and to 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 his or her beneficiary with respect to more than 50% of the Participant's interest in the Option shall not be effective without the prior written consent of the Participant's spouse or domestic partner. If no beneficiary has been designated or survives the Participant, payment shall be made to the person entitled thereto pursuant to the Participant's will or the laws of descent and distribution. Subject to the foregoing, a beneficiary designation may be changed or revoked by the Participant at any time provided the change or revocation is filed with the Administrator prior to the Participant's death.

5.4 Tax Consultation. The Participant understands that the Participant may suffer adverse tax consequences as a result of the grant, vesting or exercise of the Option, or with the purchase or disposition of the Shares subject to the Option. The Participant represents that the Participant has consulted with any tax consultants the Participant deems advisable in connection with the purchase or disposition of such Shares and that the Participant is not relying on the Company for any tax advice.

5.5 Binding Agreement. Subject to the limitation on the transferability of the Option contained herein, this Agreement will be binding upon and inure to the benefit of the heirs, legatees, legal representatives, successors and assigns of the parties hereto.

5.6 Adjustments Upon Specified Events. The Administrator may accelerate the vesting of the Option in such circumstances as it, in its sole discretion, may determine. In addition, upon the occurrence of certain events relating to the Shares contemplated by Article IX of the Plan (including, without limitation, an extraordinary cash dividend on such Shares), the Administrator shall make such adjustments the Administrator deems appropriate in the number of Shares subject to the Option, the exercise price of the Option and the kind of securities that may be issued upon exercise of the Option. The Participant acknowledges that the Option is subject to adjustment, modification and termination in certain events as provided in this Agreement and Article IX of the Plan.

5.7 Notices. Any notice to be given under the terms of this Agreement to the Company shall be addressed to the Company in care of the Secretary of the Company at the Company's principal office, and any notice to be given to the Participant shall be addressed to the Participant at the Participant's last address reflected on the Company's records. By a notice given pursuant to this Section 5.7, either party may hereafter designate a different address for notices to be given to that party. Any notice which is required to be given to the Participant shall, if the Participant is then deceased, be given to the person entitled to exercise his or her Option pursuant to Section 4.1 hereof by written notice under this Section 5.7. Any notice shall be deemed duly given when sent via email or when sent by certified mail (return receipt requested) and deposited (with postage prepaid) in a post office or branch post office regularly maintained by the United States Postal Service.

5.8 Titles. Titles are provided herein for convenience only and are not to serve as a basis for interpretation or construction of this Agreement.

5.9 Governing Law. The laws of the State of Delaware shall govern the interpretation, validity, administration, enforcement and performance of the terms of this Agreement regardless of the law that might be applied under principles of conflicts of laws.

5.10 Conformity to Securities Laws. The Participant acknowledges that the Plan and this Agreement are intended to conform to the extent necessary with all provisions of the Securities Act and the Exchange Act and any and all Applicable Law and regulations and rules promulgated by the Securities and Exchange Commission thereunder, and state securities laws and regulations. Notwithstanding anything herein to the contrary, the Plan shall be administered, and the Option is granted and may be exercised, only in such a manner as to conform to such Applicable Law. To the extent permitted by applicable law, the Plan and this Agreement shall be deemed amended to the extent necessary to conform to such Applicable Law.

5.11 Amendment, Suspension and Termination. To the extent permitted by the Plan, this Agreement may be wholly or partially amended or otherwise modified, suspended or terminated at any time or from time to time by the Administrator or the Board; *provided, however,* that, except as may otherwise be provided by the Plan, no amendment, modification, suspension or termination of this Agreement shall adversely affect the Option in any material way without the prior written consent of the Participant.

5.12 Successors and Assigns. The Company may assign any of its rights under this Agreement to single or multiple assignees, and this Agreement shall inure to the benefit of the successors and assigns of the Company. Subject to the restrictions on transfer herein set forth in Section 5.3 hereof, this Agreement shall be binding upon the Participant and his or her heirs, executors, administrators, successors and assigns.

5.13 Notification of Disposition. If this Option is designated as an Incentive Stock Option, the Participant shall give prompt notice to the Company of any disposition or other transfer of any Shares acquired under this Agreement if such disposition or transfer is made (a) within two years from the Grant Date with respect to such Shares or (b) within one year after the transfer of such Shares to the Participant. Such notice shall specify the date of such disposition or other transfer and the amount realized, in cash, other property, assumption of indebtedness or other consideration, by the Participant in such disposition or other transfer.

5.14 Limitations Applicable to Section 16 Persons. Notwithstanding any other provision of the Plan or this Agreement, if the Participant is subject to Section 16 of the Exchange Act, the Plan, the Option and this Agreement shall be subject to any additional limitations set forth in any applicable exemptive 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, this Agreement shall be deemed amended to the extent necessary to conform to such applicable exemptive rule.

5.15 Not a Contract of Service Relationship. Nothing in this Agreement or in the Plan shall confer upon the Participant any right to continue to serve as an employee or other service provider of the Company or any of its Subsidiaries or interfere with or restrict in any way with the right of the Company or any of its Subsidiaries, which rights are hereby expressly reserved, to discharge or to terminate for any reason whatsoever, with or without cause, the services of the Participant's at any time.

5.16 Entire Agreement. The Plan, the Grant Notice and this Agreement constitute the entire agreement of the parties and supersede in their entirety all prior undertakings and agreements of the Company and the Participant with respect to the subject matter hereof.

5.17 Section 409A. This Option is not intended to constitute "nonqualified deferred compensation" within the meaning of Section 409A of the Code (together with any Department of Treasury regulations and other interpretive guidance issued thereunder, including without limitation any such regulations or other guidance that may be issued after the date hereof, "***Section 409A***"). However, notwithstanding any other provision of the Plan, the Grant Notice or this Agreement, if at any time the Administrator determines that the Option (or any portion thereof) may be subject to Section 409A, the Administrator shall have the right in its sole discretion (without any obligation to do so or to indemnify the Participant or any other person for failure to do so) to adopt such amendments to the Plan, the Grant Notice or this Agreement, or adopt other policies and procedures (including amendments, policies and procedures with retroactive effect), or take any other actions, as the Administrator determines are necessary or appropriate either for the Option to be exempt from the application of Section 409A or to comply with the requirements of Section 409A.

5.18 Limitation on the Participant's Rights. Participation in the Plan confers no rights or interests other than as herein provided. This Agreement creates only a contractual obligation on the part of the Company as to amounts payable and shall not be construed as creating a trust. Neither the Plan nor any underlying program, in and of itself, has any assets. The Participant shall have only the rights of a general unsecured creditor of the Company with respect to amounts credited and benefits payable, if any, with respect to the Option, and rights no greater than the right to receive the Shares as a general unsecured creditor with respect to options, as and when exercised pursuant to the terms hereof.

* * * * *

GRITSTONE ONCOLOGY, INC.
2018 INCENTIVE AWARD PLAN
RESTRICTED STOCK AWARD GRANT NOTICE

Gritstone Oncology, Inc., a Delaware corporation, (the "***Company***"), pursuant to its 2018 Incentive Award Plan, as amended from time to time (the "***Plan***"), hereby grants to the holder listed below (the "***Participant***") the number of shares of the Company's Common Stock set forth below (the "***Shares***") subject to all of the terms and conditions as set forth herein and in the Restricted Stock Award Agreement attached hereto as **Exhibit A** (the "***Agreement***") (including without limitation the Restrictions on the Shares set forth in the Agreement) and the Plan, each of which is incorporated herein by reference. Unless otherwise defined herein, the terms defined in the Plan shall have the same defined meanings in this Restricted Stock Award Grant Notice (the "***Grant Notice***") and the Agreement.

Participant:	[_____]
Grant Date:	[_____]
Total Number of Shares of Restricted Stock:	[_____]
Vesting Commencement Date:	[_____]
Vesting Schedule:	[_____]
Termination:	If the Participant experiences a Termination of Service, any Shares that have not become vested on or prior to the date of such Termination of Service will thereupon be automatically forfeited by the Participant, and the Participant's rights in such Shares shall thereupon lapse and expire.

By his or her signature and the Company's signature below, the Participant agrees to be bound by the terms and conditions of the Plan, the Agreement and this Grant Notice. The Participant has reviewed the Plan, the Agreement and this Grant Notice in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Grant Notice and fully understands all provisions of the Plan, Agreement and this Grant Notice. The Participant hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Administrator upon any questions arising under the Plan, the Agreement or this Grant Notice. In addition, by signing below, the Participant also agrees that the Company, in its sole discretion, may satisfy any withholding obligations in accordance with Section 2.2(c) of the Agreement by (i) withholding shares of Common Stock otherwise issuable to the Participant upon vesting of the Shares, (ii) instructing a broker on the Participant's behalf to sell Shares upon vesting and submit the proceeds of such sale to the Company, or (iii) using any other method permitted by Section 2.2(c) of the Agreement or the Plan.

GRITSTONE ONCOLOGY, INC.:		**PARTICIPANT:**	
By:	_____	By:	_____
Print Name:	_____	Print Name:	_____
Title:	_____		
Address:	_____	Address:	_____
	_____		_____

EXHIBIT A
TO RESTRICTED STOCK AWARD GRANT NOTICE

RESTRICTED STOCK AWARD AGREEMENT

Pursuant to the Restricted Stock Award Grant Notice (the "***Grant Notice***") to which this Restricted Stock Award Agreement (this "***Agreement***") is attached, Gritstone Oncology, Inc., a Delaware corporation, (the "***Company***") has granted to the Participant the number of shares of Restricted Stock (the "***Shares***") under the Company's 2018 Incentive Award Plan, as amended from time to time (the "***Plan***"), as set forth in the Grant Notice.

ARTICLE I.

GENERAL

1.1 Defined Terms. Capitalized terms not specifically defined herein shall have the meanings specified in the Plan and the Grant Notice.

1.2 Incorporation of Terms of Plan. The Award (as defined below) is subject to the terms and conditions of the Plan, which are incorporated herein by reference. In the event of any inconsistency between the Plan and this Agreement, the terms of the Plan shall control.

ARTICLE II.

AWARD OF RESTRICTED STOCK

2.1 Award of Restricted Stock.

(a) *Award*. Pursuant to the Grant Notice and upon the terms and conditions set forth in the Plan and this Agreement, effective as of the Grant Date set forth in the Grant Notice, the Company has granted to the Participant an award of Restricted Stock (the "***Award***") under the Plan in consideration of the Participant's past or continued employment with or service to the Company or any Subsidiary, and for other good and valuable consideration. The number of Shares subject to the Award is set forth in the Grant Notice. The Participant is an Employee, Director or Consultant of the Company or one of its Subsidiaries.

(b) *Escrow*. The Participant, by acceptance of the Award, shall be deemed to appoint, and does so appoint, the Secretary of the Company or such other escrow holder as the Administrator may appoint to hold the Shares in escrow as the Participant's attorney(s)-in-fact to effect any transfer of unvested forfeited Shares (or Shares otherwise reacquired by the Company hereunder) to the Company as may be required pursuant to the Plan or this Agreement and to execute such documents as the Company or such representatives deem necessary or advisable in connection with any such transfer.

(c) *Removal of Notations*. As soon as administratively practicable after the vesting of any Shares subject to the Award pursuant to Section 2.2(b) hereof, the Company shall remove the notations on any Shares subject to the Award which have vested (or such lesser number of Shares as may be permitted pursuant to Section 10.7 of the Plan). The Participant (or the beneficiary or personal representative of the Participant in the event of the Participant's death or incapacity, as the case may be) shall deliver to the Company any representations or other documents or assurances required by the Company.

2.2 Restrictions.

(a) *Forfeiture*. Notwithstanding any contrary provision of this Agreement, upon the Participant's Termination of Service for any or no reason, any Shares subject to Restrictions shall thereupon be forfeited immediately and without any further action by the Company, and the Participant's rights in such Shares shall thereupon lapse and expire.

(b) *Vesting and Lapse of Restrictions*. As of the Grant Date, 100% of the Shares shall be subject to a risk of forfeiture and the transfer restrictions set forth in Section 3.3 hereof (collectively, such risk of forfeiture and such transfer restrictions, the "***Restrictions***"). The Award shall vest and Restrictions shall lapse in accordance with the vesting schedule set forth in the Grant Notice (rounding down to the nearest whole Share).

(c) *Tax Withholding*. As set forth in Section 10.5 of the Plan, the Company shall have the authority and the right to deduct or withhold, or to require the Participant to remit to the Company, an amount sufficient to satisfy all applicable federal, state and local taxes required by law to be withheld with respect to any taxable event arising in connection with the Award. The Company shall not be obligated to transfer Shares held in escrow to the Participant or the Participant's legal representative until the Participant or the Participant's legal representative shall have paid or otherwise satisfied in full the amount of all federal, state and local taxes applicable to the taxable income of the Participant resulting from the grant or vesting of the Award or the issuance of Shares.

(d) *Stop Transfer Instructions*. To ensure compliance with the Restrictions, the provisions of the charter documents of the Company and Applicable Law, and for other proper purposes, the Company may issue appropriate "stop transfer" and other instructions to its transfer agent with respect to the Restricted Stock. The Company shall notify the transfer agent as and when the Restrictions lapse.

2.3 Consideration to the Company. In consideration of the grant of the Award pursuant hereto, the Participant agrees to render faithful and efficient services to the Company or any Subsidiary.

ARTICLE III.

OTHER PROVISIONS

3.1 Section 83(b) Election. If the 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 the Participant would otherwise be taxable under Section 83(a) of the Code, the Participant hereby agrees to deliver a copy of such election to the Company promptly after filing such election with the Internal Revenue Service.

3.2 Administration. The Administrator shall have the power to interpret the Plan and this Agreement 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. All actions taken and all interpretations and determinations made by the Administrator in good faith shall be final and binding upon the Participant, the Company and all other interested persons. No member of the Administrator or the Board shall be personally liable for any action, determination or interpretation made in good faith with respect to the Plan, this Agreement or the Award.

3.3 Restricted Stock Not Transferable. Until the Restrictions hereunder lapse or expire pursuant to this Agreement and the Shares vest, the Restricted Stock (including any Shares or other securities or property received by the Participant with respect to Restricted Stock as a result of stock dividends, stock splits or any other form of recapitalization) shall be subject to the restrictions on transferability set forth in Section 10.1 of the Plan.

3.4 Rights as Stockholder. Except as otherwise provided herein, upon the Grant Date, the Participant shall have all the rights of a stockholder of the Company with respect to the Shares, subject to the Restrictions, including, without limitation, voting rights and rights to receive any cash or stock dividends, in respect of the Shares subject to the Award and deliverable hereunder.

3.5 Tax Consultation. The Participant understands that the Participant may suffer adverse tax consequences in connection with the Restricted Stock granted pursuant to this Agreement (and the Shares issuable with respect thereto). The Participant represents that the Participant has consulted with any tax consultants the Participant deems advisable in connection with the Restricted Stock and that the Participant is not relying on the Company for any tax advice.

3.6 Adjustments Upon Specified Events. The Administrator may accelerate the vesting of the Restricted Stock in such circumstances as it, in its sole discretion, may determine. The Participant acknowledges that the Restricted Stock is subject to adjustment, modification and termination in certain events as provided in this Agreement and Article IX of the Plan.

3.7 Notices. Any notice to be given under the terms of this Agreement to the Company shall be addressed to the Company in care of the Secretary of the Company at the Company's principal office, and any notice to be given to the Participant shall be addressed to the Participant at the Participant's last address reflected on the Company's records. By a notice given pursuant to this Section 3.7, either party may hereafter designate a different address for notices to be given to that party. Any notice shall be deemed duly given when sent via email or when sent by certified mail (return receipt requested) and deposited (with postage prepaid) in a post office or branch post office regularly maintained by the United States Postal Service.

3.8 Participant's Representations. If the Shares issuable hereunder have not been registered under the Securities Act or any applicable state laws on an effective registration statement at the time of such issuance, the Participant shall, if required by the Company, concurrently with such issuance, make such written representations as are deemed necessary or appropriate by the Company or its counsel.

3.9 Titles. Titles are provided herein for convenience only and are not to serve as a basis for interpretation or construction of this Agreement.

3.10 Governing Law. The laws of the State of Delaware shall govern the interpretation, validity, administration, enforcement and performance of the terms of this Agreement regardless of the law that might be applied under principles of conflicts of laws.

3.11 Conformity to Securities Laws. The Participant acknowledges that the Plan and this Agreement are intended to conform to the extent necessary with all provisions of the Securities Act and the Exchange Act, and any and all Applicable Law. Notwithstanding anything herein to the contrary, the Plan shall be administered, and the Award is granted, only in such a manner as to conform to such Applicable Law. To the extent permitted by Applicable Law, the Plan and this Agreement shall be deemed amended to the extent necessary to conform to such Applicable Law.

3.12 Amendment, Suspension and Termination. To the extent permitted by the Plan, this Agreement may be wholly or partially amended or otherwise modified, suspended or terminated at any time or from time to time by the Administrator or the Board; *provided, however*, that, except as may otherwise be provided by the Plan, no amendment, modification, suspension or termination of this Agreement shall adversely affect the Award in any material way without the prior written consent of the Participant.

3.13 Successors and Assigns. The Company or any Subsidiary may assign any of its rights under this Agreement to single or multiple assignees, and this Agreement shall inure to the benefit of the successors and assigns of the Company and its Subsidiaries. Subject to the restrictions on transfer set forth in Section 3.3 hereof, this Agreement shall be binding upon the Participant and his or her heirs, executors, administrators, successors and assigns.

3.14 Limitations Applicable to Section 16 Persons. Notwithstanding any other provision of the Plan or this Agreement, if the Participant is subject to Section 16 of the Exchange Act, then the Plan, the Award and this Agreement shall be subject to any additional limitations set forth in any applicable exemptive 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, this Agreement shall be deemed amended to the extent necessary to conform to such applicable exemptive rule.

3.15 Not a Contract of Service Relationship. Nothing in this Agreement or in the Plan shall confer upon the Participant any right to continue to serve as an Employee or other service provider of the Company or any of its Subsidiaries or shall interfere with or restrict in any way the rights of the Company and its Subsidiaries, which rights are hereby expressly reserved, to discharge or terminate the services of the Participant at any time for any reason whatsoever, with or without cause, except to the extent expressly provided otherwise in a written agreement between the Company or a Subsidiary and the Participant.

3.16 Entire Agreement. The Plan, the Grant Notice and this Agreement (including all Exhibits thereto, if any) constitute the entire agreement of the parties and supersede in their entirety all prior undertakings and agreements of the Company and its Subsidiaries and the Participant with respect to the subject matter hereof.

3.17 Limitation on the Participant's Rights. Participation in the Plan confers no rights or interests other than as herein provided. This Agreement creates only a contractual obligation on the part of the Company as to amounts payable and shall not be construed as creating a trust. Neither the Plan nor any underlying program, in and of itself, has any assets. The Participant shall have only the rights of a general unsecured creditor of the Company and its Subsidiaries with respect to amounts credited and benefits payable, if any, with respect to the Shares issuable hereunder.

* * * * *

GRITSTONE ONCOLOGY, INC.
2018 INCENTIVE AWARD PLAN

RESTRICTED STOCK UNIT AWARD GRANT NOTICE

Gritstone Oncology, Inc., a Delaware corporation, (the "***Company***"), pursuant to its 2018 Incentive Award Plan, as amended from time to time (the "***Plan***"), hereby grants to the holder listed below (the "***Participant***"), an award of restricted stock units ("***Restricted Stock Units***" or "***RSUs***"). Each vested Restricted Stock Unit represents the right to receive, in accordance with the Restricted Stock Unit Award Agreement attached hereto as **Exhibit A** (the "***Agreement***"), one share of Common Stock ("***Share***"). This award of Restricted Stock Units is subject to all of the terms and conditions set forth herein and in the Agreement and the Plan, each of which are incorporated herein by reference. Unless otherwise defined herein, the terms defined in the Plan shall have the same defined meanings in this Restricted Stock Unit Award Grant Notice (the "***Grant Notice***") and the Agreement.

Participant:	[_____]
Grant Date:	[_____]
Total Number of RSUs:	[_____]
Vesting Commencement Date:	[_____]
Vesting Schedule:	[_____]
Termination:	If the Participant experiences a Termination of Service, all RSUs that have not become vested on or prior to the date of such Termination of Service will thereupon be automatically forfeited by the Participant without payment of any consideration therefor.

By his or her signature and the Company's signature below, the Participant agrees to be bound by the terms and conditions of the Plan, the Agreement and this Grant Notice. The Participant has reviewed the Plan, the Agreement and this Grant Notice in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Grant Notice and fully understands all provisions of the Plan, the Agreement and this Grant Notice. The Participant hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Administrator upon any questions arising under the Plan, the Agreement or this Grant Notice. In addition, by signing below, the Participant also agrees that the Company, in its sole discretion, may satisfy any withholding obligations in accordance with Section 2.6(b) of the Agreement by (i) withholding shares of Common Stock otherwise issuable to the Participant upon vesting of the RSUs, (ii) instructing a broker on the Participant's behalf to sell shares of Common Stock otherwise issuable to the Participant upon vesting of the RSUs and submit the proceeds of such sale to the Company, or (iii) using any other method permitted by Section 2.6(b) of the Agreement or the Plan.

GRITSTONE ONCOLOGY, INC.:		**PARTICIPANT:**	
By:	_____	By:	_____
Print Name:	_____	Print Name:	_____
Title:	_____		
Address:	_____	Address:	_____

EXHIBIT A
TO RESTRICTED STOCK UNIT AWARD GRANT NOTICE

RESTRICTED STOCK UNIT AWARD AGREEMENT

Pursuant to the Restricted Stock Unit Award Grant Notice (the "***Grant Notice***") to which this Restricted Stock Unit Award Agreement (this "***Agreement***") is attached, Gritstone Oncology, Inc., a Delaware corporation (the "***Company***"), has granted to the Participant the number of restricted stock units ("***Restricted Stock Units***" or "***RSUs***") set forth in the Grant Notice under the Company's 2018 Incentive Award Plan, as amended from time to time (the "***Plan***"). Each Restricted Stock Unit represents the right to receive one share of Common Stock (a "***Share***") upon vesting.

ARTICLE I.

GENERAL

1.1 Defined Terms. Capitalized terms not specifically defined herein shall have the meanings specified in the Plan and the Grant Notice.

1.2 Incorporation of Terms of Plan. The RSUs are subject to the terms and conditions of the Plan, which are incorporated herein by reference. In the event of any inconsistency between the Plan and this Agreement, the terms of the Plan shall control.

ARTICLE II.

GRANT OF RESTRICTED STOCK UNITS

2.1 Grant of RSUs. Pursuant to the Grant Notice and upon the terms and conditions set forth in the Plan and this Agreement, effective as of the Grant Date set forth in the Grant Notice, the Company hereby grants to the Participant an award of RSUs under the Plan in consideration of the Participant's past or continued employment with or service to the Company or any Subsidiaries and for other good and valuable consideration.

2.2 Unsecured Obligation to RSUs. Unless and until the RSUs have vested in the manner set forth in Article 2 hereof, the Participant will have no right to receive Common Stock under any such RSUs. Prior to actual payment of any vested RSUs, such RSUs will represent an unsecured obligation of the Company, payable (if at all) only from the general assets of the Company.

2.3 Vesting Schedule. Subject to Section 2.5 hereof, the RSUs shall vest and become nonforfeitable with respect to the applicable portion thereof according to the vesting schedule set forth in the Grant Notice (rounding down to the nearest whole Share).

2.4 Consideration to the Company. In consideration of the grant of the award of RSUs pursuant hereto, the Participant agrees to render faithful and efficient services to the Company or any Subsidiary.

2.5 Forfeiture, Termination and Cancellation upon Termination of Service. Notwithstanding any contrary provision of this Agreement or the Plan, upon the Participant's Termination of Service for any or no reason, all Restricted Stock Units which have not vested prior to or in connection with such Termination of Service shall thereupon automatically be forfeited, terminated and cancelled as of the applicable termination date without payment of any consideration by the Company, and the

Participant, or the Participant's beneficiary or personal representative, as the case may be, shall have no further rights hereunder. No portion of the RSUs which has not become vested as of the date on which the Participant incurs a Termination of Service shall thereafter become vested.

2.6 Issuance of Common Stock upon Vesting.

(a) As soon as administratively practicable following the vesting of any Restricted Stock Units pursuant to Section 2.3 hereof, but in no event later than 30 days after such vesting date (for the avoidance of doubt, this deadline is intended to comply with the "short term deferral" exemption from Section 409A of the Code), the Company shall deliver to the Participant (or any transferee permitted under Section 3.2 hereof) a number of Shares equal to the number of RSUs subject to this Award that vest on the applicable vesting date. Notwithstanding the foregoing, in the event Shares cannot be issued pursuant to Section 10.7 of the Plan, the Shares shall be issued pursuant to the preceding sentence as soon as administratively practicable after the Administrator determines that Shares can again be issued in accordance with such Section.

(b) As set forth in Section 10.5 of the Plan, the Company shall have the authority and the right to deduct or withhold, or to require the Participant to remit to the Company, an amount sufficient to satisfy all applicable federal, state and local taxes required by law to be withheld with respect to any taxable event arising in connection with the Restricted Stock Units. The Company shall not be obligated to deliver any Shares to the Participant or the Participant's legal representative unless and until the Participant or the Participant's legal representative shall have paid or otherwise satisfied in full the amount of all federal, state and local taxes applicable to the taxable income of the Participant resulting from the grant or vesting of the Restricted Stock Units or the issuance of Shares.

2.7 Conditions to Delivery of Shares. The Shares deliverable hereunder may be either previously authorized but unissued Shares, treasury Shares or issued Shares which have then been reacquired by the Company. Such Shares shall be fully paid and nonassessable. The Company shall not be required to issue Shares deliverable hereunder prior to fulfillment of the conditions set forth in Section 10.7 of the Plan.

2.8 Rights as Stockholder. The holder of the RSUs shall not be, nor have any of the rights or privileges of, a stockholder of the Company, including, without limitation, voting rights and rights to dividends, in respect of the RSUs and any Shares underlying the RSUs and deliverable hereunder unless and until such Shares shall have been issued by the Company and held of record by such holder (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company). No adjustment shall be made for a dividend or other right for which the record date is prior to the date the Shares are issued, except as provided in Article IX of the Plan.

ARTICLE III.

OTHER PROVISIONS

3.1 Administration. The Administrator shall have the power to interpret the Plan and this Agreement 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. All actions taken and all interpretations and determinations made by the Administrator in good faith shall be final and binding upon the Participant, the Company and all other interested persons. No member of the Administrator or the Board shall be personally liable for any action, determination or interpretation made in good faith with respect to the Plan, this Agreement or the RSUs.

3.2 RSUs Not Transferable. The RSUs shall be subject to the restrictions on transferability set forth in Section 10.1 of the Plan.

3.3 Tax Consultation. The Participant understands that the Participant may suffer adverse tax consequences in connection with the RSUs granted pursuant to this Agreement (and the Shares issuable with respect thereto). The Participant represents that the Participant has consulted with any tax consultants the Participant deems advisable in connection with the RSUs and the issuance of Shares with respect thereto and that the Participant is not relying on the Company for any tax advice.

3.4 Binding Agreement. Subject to the limitation on the transferability of the RSUs contained herein, this Agreement will be binding upon and inure to the benefit of the heirs, legatees, legal representatives, successors and assigns of the parties hereto.

3.5 Adjustments Upon Specified Events. The Administrator may accelerate the vesting of the RSUs in such circumstances as it, in its sole discretion, may determine. The Participant acknowledges that the RSUs are subject to adjustment, modification and termination in certain events as provided in this Agreement and Article IX of the Plan.

3.6 Notices. Any notice to be given under the terms of this Agreement to the Company shall be addressed to the Company in care of the Secretary of the Company at the Company's principal office, and any notice to be given to the Participant shall be addressed to the Participant at the Participant's last address reflected on the Company's records. By a notice given pursuant to this Section 3.6, either party may hereafter designate a different address for notices to be given to that party. Any notice shall be deemed duly given when sent via email or when sent by certified mail (return receipt requested) and deposited (with postage prepaid) in a post office or branch post office regularly maintained by the United States Postal Service.

3.7 Participant's Representations. If the Shares issuable hereunder have not been registered under the Securities Act or any applicable state laws on an effective registration statement at the time of such issuance, the Participant shall, if required by the Company, concurrently with such issuance, make such written representations as are deemed necessary or appropriate by the Company or its counsel.

3.8 Titles. Titles are provided herein for convenience only and are not to serve as a basis for interpretation or construction of this Agreement.

3.9 Governing Law. The laws of the State of Delaware shall govern the interpretation, validity, administration, enforcement and performance of the terms of this Agreement regardless of the law that might be applied under principles of conflicts of laws.

3.10 Conformity to Securities Laws. The Participant acknowledges that the Plan and this Agreement are intended to conform to the extent necessary with all provisions of the Securities Act and the Exchange Act and any other Applicable Law. Notwithstanding anything herein to the contrary, the Plan shall be administered, and the RSUs are granted, only in such a manner as to conform to Applicable Law. To the extent permitted by Applicable Law, the Plan and this Agreement shall be deemed amended to the extent necessary to conform to such Applicable Law.

3.11 Amendment, Suspension and Termination. To the extent permitted by the Plan, this Agreement may be wholly or partially amended or otherwise modified, suspended or terminated at any time or from time to time by the Administrator or the Board; *provided, however,* that, except as may otherwise be provided by the Plan, no amendment, modification, suspension or termination of this Agreement shall adversely affect the RSUs in any material way without the prior written consent of the Participant.

3.12 Successors and Assigns. The Company may assign any of its rights under this Agreement to single or multiple assignees, and this Agreement shall inure to the benefit of the successors and assigns of the Company. Subject to the restrictions on transfer herein set forth in Section 3.2 hereof, this Agreement shall be binding upon the Participant and his or her heirs, executors, administrators, successors and assigns.

3.13 Limitations Applicable to Section 16 Persons. Notwithstanding any other provision of the Plan or this Agreement, if the Participant is subject to Section 16 of the Exchange Act, then the Plan, the RSUs and this Agreement shall be subject to any additional limitations set forth in any applicable exemptive 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, this Agreement shall be deemed amended to the extent necessary to conform to such applicable exemptive rule.

3.14 Not a Contract of Service Relationship. Nothing in this Agreement or in the Plan shall confer upon Participant any right to continue to serve as an employee or other service provider of the Company or any of its Subsidiaries or interfere with or restrict in any way with the right of the Company or any of its Subsidiaries, which rights are hereby expressly reserved, to discharge or to terminate for any reason whatsoever, with or without cause, the services of the Participant at any time.

3.15 Entire Agreement. The Plan, the Grant Notice and this Agreement (including all Exhibits thereto, if any) constitute the entire agreement of the parties and supersede in their entirety all prior undertakings and agreements of the Company and the Participant with respect to the subject matter hereof.

3.16 Section 409A. This Award is not intended to constitute "nonqualified deferred compensation" within the meaning of Section 409A of the Code (together with any Department of Treasury regulations and other interpretive guidance issued thereunder, including without limitation any such regulations or other guidance that may be issued after the date hereof, "***Section 409A***"). However, notwithstanding any other provision of the Plan, the Grant Notice or this Agreement, if at any time the Administrator determines that this Award (or any portion thereof) may be subject to Section 409A, the Administrator shall have the right in its sole discretion (without any obligation to do so or to indemnify Participant or any other person for failure to do so) to adopt such amendments to the Plan, the Grant Notice or this Agreement, or adopt other policies and procedures (including amendments, policies and procedures with retroactive effect), or take any other actions, as the Administrator determines are necessary or appropriate for this Award either to be exempt from the application of Section 409A or to comply with the requirements of Section 409A.

3.17 Limitation on Participant's Rights. Participation in the Plan confers no rights or interests other than as herein provided. This Agreement creates only a contractual obligation on the part of the Company as to amounts payable and shall not be construed as creating a trust. Neither the Plan nor any underlying program, in and of itself, has any assets. The Participant shall have only the rights of a general unsecured creditor of the Company and its Subsidiaries with respect to amounts credited and benefits payable, if any, with respect to the RSUs, and rights no greater than the right to receive the Common Stock as a general unsecured creditor with respect to RSUs, as and when payable hereunder.

* * * * *

GRITSTONE ONCOLOGY, INC.
2018 EMPLOYEE STOCK PURCHASE PLAN

ARTICLE I.
PURPOSE

The Plan's purpose is to assist employees of 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

As used in the Plan, the following words and phrases have the meanings specified below, unless the context clearly indicates otherwise:

2.1 "***Administrator***" means 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***" means the Board of Directors of the Company.

2.4 "***Code***" means the U.S. Internal Revenue Code of 1986, as amended, and all regulations, guidance, compliance programs and other interpretative authority issued thereunder.

2.5 "***Committee***" means the Compensation Committee of the Board.

2.6 "***Common Stock***" means the common stock of the Company.

2.7 "***Company***" means Gritstone Oncology, Inc., a Delaware corporation, or any successor.

2.8 "***Compensation***" of an Employee means 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***" means 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***" means the date immediately prior to the date the 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***" means an Employee who:

(a) is customarily scheduled to work at least 20 hours per week;

(b) whose customary employment is more than five 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 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 or (C) who is subject to the disclosure requirements of Section 16(a) of the Exchange Act; 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 (A) the grant of the Option is prohibited under the laws of the jurisdiction governing such Employee, or (B) 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) 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***" means 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 a Designated Subsidiary and meeting the requirements of Treasury Regulation Section 1.421-1(h)(2). Where the period of leave exceeds three 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-month period, or such other period specified in Treasury Regulation Section 1.421-1(h)(2).

2.13 "***Enrollment Date***" means the first date of each Offering Period.

2.14 "***Exercise Date***" means the last Trading Day of each Offering Period, except as provided in Section 5.2 hereof.

2.15 "***Exchange Act***" means the Securities Exchange Act of 1934, as amended.

2.16 "***Fair Market Value***" means, 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 or 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***" means the first Trading Day of an Offering Period.

2.18 "***New Exercise Date***" has the meaning set forth in Section 5.2(b) hereof.

2.19 "***Offering Period***" means 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 27 months.

2.20 "***Option***" means the right to purchase shares of Common Stock pursuant to the Plan during each Offering Period.

2.21 "***Option Price***" means 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.

2.23 "***Participant***" means any Eligible Employee who elects to participate in the Plan.

2.24 "***Payday***" means the regular and recurring established day for payment of Compensation to an Employee of the Company or any Designated Subsidiary.

2.25 "***Plan***" means this 2018 Employee Stock Purchase Plan.

2.26 "***Plan Account***" means a bookkeeping account established and maintained by the Company in the name of each Participant.

2.27 "***Section 423 Option***" has the meaning set forth in Section 3.1(b) hereof.

2.28 "***Subsidiary***" means any entity that is a subsidiary corporation of the Company within the meaning of Section 424 of the Code. 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***" means 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, means a business day, as determined by the Administrator in good faith.

2.30 "***Withdrawal Election***" has the meaning set forth in Section 6.1(a) hereof.

ARTICLE III.
PARTICIPATION

3.1 Eligibility.

(a) Any Eligible Employee who is 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.

(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 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.

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 than the period of time prior to the applicable Enrollment Date that is 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 1% of the Participant's Compensation as of each Payday of the Offering Period following the Enrollment Date, but not more than 15% of the Participant's Compensation as of each Payday of the Offering Period following the Enrollment Date; 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 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 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), 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 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) 282,334 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) 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 5,000,000 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 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 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 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 lump-sum payment in cash within 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 lump-sum payment in cash within 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 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 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 administer the Plan, subject to Section 423 of the Code.

(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 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 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 the 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 years after the applicable Grant Date or (b) within one 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, without regard to the conflict of law rules thereof or of any other jurisdiction.

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 so that this Plan qualifies as an "employee stock purchase plan" within the meaning of Section 423 of the Code. Any provision of this Plan that is inconsistent with Section 423 of the Code 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.

* * * * *

I hereby certify that the foregoing Plan was adopted by the Board of Directors of Gritstone Oncology, Inc. on _____, 2018.

I hereby certify that the foregoing Plan was approved by the stockholders of Gritstone Oncology, Inc. on _____, 2018.

Executed on _____, 2018.

_____

Corporate Secretary

GRITSTONE ONCOLOGY, INC.

EMPLOYMENT AGREEMENT

This Employment Agreement (the "***Agreement***"), entered into as of September 16, 2018(the "***Agreement Date***"), is between Gritstone Oncology, Inc., a Delaware corporation (the "***Company***") and Andrew Allen ("***Executive***" and, together with the Company, the "***Parties***"). This Agreement will become effective as a binding contract as of the Agreement Date, but the operative provisions of this Agreement will only become effective as of immediately prior to the time the Company's registration statement relating to the initial public offering of the Company's common stock becomes effective (the "***Effective Date***"). This Agreement supersedes in its entirety that certain offer letter between Executive and the Company dated as of October 7, 2015 ("***Offer Letter***").

WHEREAS, the Company desires to assure itself of the continued services of Executive by engaging Executive to perform services as an employee of the Company under the terms hereof;

WHEREAS, Executive desires to provide continued services to the Company on the terms herein provided; and

WHEREAS, the Parties desire to execute this Agreement to supersede the Offer Letter in its entirety and reflect certain changes to Executive's employment with the Company effective as of the Effective Date.

NOW, THEREFORE, in consideration of the foregoing, and for other good and valuable consideration, including the respective covenants and agreements set forth below, the receipt and sufficiency of which are hereby acknowledged, the Parties hereto agree as follows:

1. Employment.

(a) General. The Company shall employ Executive upon the terms and conditions provided herein effective as of the Effective Date.

(b) Position and Duties. Effective on the Effective Date, Executive: (i) shall continue to serve as the Company's President and Chief Executive Officer, with responsibilities, duties, and authority usual and customary for such position, subject to direction by the Company's Board of Directors (the "***Board***"); (ii) shall continue to report directly to the Board; and (iii) agrees promptly and faithfully to comply with all present and future policies, requirements, rules and regulations, and reasonable directions and requests, of the Company in connection with the Company's business. As of the Effective Date, Executive shall continue to serve as a member of the Board, and, while Executive is employed hereunder, the Company shall nominate Executive for reelection as a member of the Board at the end of each Board term. At the Company's request, Executive shall serve the Company and/or its subsidiaries and affiliates in such other capacities in addition to the foregoing as the Company shall designate, provided that such additional capacities are consistent with Executive's position as the Company's President and Chief Executive Officer. In the event that Executive serves in any one or more of such additional capacities, Executive's compensation shall not automatically be increased on account of such additional service.

(c) Performance of Executive's Duties. During Executive's employment with the Company, and except for periods of illness, vacation, disability, or reasonable leaves of absence or as discussed in Section 1(e), Executive shall devote Executive's full time and attention to the business and affairs of the Company pursuant to the general direction of the Board. The rights of Executive under this Agreement shall not be affected by any change in the title, duties, or capacity of Executive during Executive's employment with the Company.

(d) Principal Office. Executive will work principally at the Company's facility located in Emeryville, California.

(e) Exclusivity. Except with the prior written approval of the Board (which the Board may grant or withhold in its sole and absolute discretion), Executive shall devote substantially all of Executive's working time, attention, and energies to the business of the Company, except during any paid vacation or other excused absence periods. Nothing in this section prevents Executive from engaging in additional activities in connection with personal investments and community affairs. Executive may also serve as a member of the board of directors or board of advisors of another organization provided (i) such organization is not a competitor of the Company; (ii) Executive receives prior written approval from the Board; and (iii) such activities do not individually or in the aggregate interfere with the performance of Executive's duties under this Agreement, violate the Company's standards of conduct then in effect, or raise a conflict under the Company's conflict of interest policies.

2. Term. The period of Executive's employment under this Agreement shall commence on the Effective Date and shall continue until Executive's employment with the Company is terminated pursuant to Section 5. The phrase "***Term***" as used in this Agreement shall refer to the entire period of employment of Executive by the Company.

3. Compensation and Related Matters.

(a) Annual Base Salary. During the Term, Executive shall receive a base salary at the rate of $500,000 per year (as may be increased from time to time, the "***Annual Base Salary***"), subject to withholdings and deductions, which shall be paid to Executive in accordance with the customary payroll practices and procedures of the Company. Such Annual Base Salary shall be reviewed by the Board and/or the Compensation Committee of the Board, not less than annually.

(b) Annual Bonus. Executive shall be eligible to receive a discretionary annual bonus based on Executive's achievement of performance objectives as mutually agreed between Executive and the Board, such bonus to be targeted at 50% of Executive's Annual Base Salary (the "***Annual Bonus***"). Any Annual Bonus approved by the Board and/or the Compensation Committee of the Board shall be paid at the same time annual bonuses are paid to other executives of the Company generally, subject to Executive's continuous employment through the date of approval.

(c) Benefits. Executive shall be entitled to participate in such employee and executive benefit plans and programs as the Company may from time to time offer to provide to its executives, subject to the terms and conditions of such plans. Notwithstanding the foregoing, nothing herein is intended, or shall be construed, to require the Company to institute or continue any, or any particular, plan or benefit.

(d) Business Expenses. The Company shall reimburse Executive for all reasonable, documented, out-of-pocket travel and other business expenses incurred by Executive in the performance of Executive's duties to the Company in accordance with the Company's applicable expense reimbursement policies and procedures as are in effect from time to time.

(e) Vacation. Executive will be entitled to paid vacation in accordance with the Company's vacation policy.

4. Equity Awards. Executive shall be eligible for such stock options and equity awards as may be determined by the Company, in its sole discretion.

5. Termination.

(a) At-Will Employment. The Company and Executive acknowledge that Executive's employment is and shall continue to be at-will, as defined under applicable law. This means that it is not for any specified period of time and can be terminated by Executive or by the Company at any time, with or without advance notice, and for any or no particular reason or cause. It also means that Executive's job duties, title, and responsibility and reporting level, work schedule, compensation, and benefits, as well as the Company's personnel policies and procedures, may be changed with prospective effect, with or without notice, at any time in the sole discretion of the Company (subject to any ramification such changes may have under Section 6 of this Agreement). This "at-will" nature of Executive's employment shall remain unchanged during Executive's tenure as an employee and may not be changed, except in an express writing signed by Executive and a duly-authorized officer of the Company. If Executive's employment terminates for any lawful reason, Executive shall not be entitled to any payments, benefits, damages, award, or compensation other than as provided in this Agreement.

(b) Notice of Termination. During the Term, any termination of Executive's employment by the Company or by Executive (other than by reason of death) shall be communicated by written notice (a "***Notice of Termination***") from one Party hereto to the other Party hereto (i) indicating the specific termination provision in this Agreement relied upon, if any, (ii) setting forth in reasonable detail the facts and circumstances claimed to provide a basis for termination of Executive's employment under the provision so indicated, and (iii) specifying the Date of Termination (as defined below). The failure by the Company to set forth in the Notice of Termination all of the facts and circumstances which contribute to a showing of Cause (as defined below) shall not waive any right of the Company hereunder or preclude the Company from asserting such fact or circumstance in enforcing their rights hereunder.

(c) Date of Termination. For purposes of this Agreement, "***Date of Termination***" shall mean the date of the termination of Executive's employment with the Company specified in a Notice of Termination.

(d) Deemed Resignation. Upon termination of Executive's employment for any reason, Executive shall be deemed to have resigned from all offices and board memberships, if any, then held with the Company or any of its affiliates, and, at the Company's request, Executive shall execute such documents as are necessary or desirable to effectuate such resignations.

6. Consequences of Termination.

(a) Payments of Accrued Obligations upon all Terminations of Employment. Upon a termination of Executive's employment for any reason, Executive (or Executive's estate or legal representative, as applicable) shall be entitled to receive, within 30 days after Executive's Date of Termination (or such earlier date as may be required by applicable law): (i) any portion of Executive's Annual Base Salary earned through Executive's Date of Termination not theretofore paid, (ii) any expenses owed to Executive under Section 3, (iii) any accrued but unused paid time-off owed to Executive, (iv) any Annual Bonus approved by the Board and/or the Compensation Committee of the Board on or prior to the Date of Termination but unpaid as of the Date of Termination, and (v) any amount arising from Executive's participation in, or benefits under, any employee benefit plans, programs, or arrangements under Section 3, which amounts shall be payable in accordance with the terms and conditions of such employee benefit plans, programs, or arrangements. Except as otherwise set forth in Sections 6(b) and (c), the payments and benefits described in this Section 6(a) shall be the only payments and benefits payable in the event of Executive's termination of employment for any reason.

(b) Severance Payments upon Covered Termination Outside a Change in Control Period. If, during the Term, Executive experiences a Covered Termination outside a Change in Control Period (each as defined below), then in addition to the payments and benefits described in Section 6(a), the Company shall, subject to Executive's delivery to the Company of a waiver and release of claims agreement in a form approved by the Company (a "***Release***") that becomes effective and irrevocable in accordance with Section 11(d), provide Executive with the following:

(i) The Company shall pay to Executive an amount equal to the sum of (i) Executive's Annual Base Salary and (ii) Executive's target Annual Bonus. Such amount will be subject to applicable withholdings and payable in a single lump sum cash payment on the first regular payroll date following the date the Release becomes effective and irrevocable in accordance with Section 11(d).

(ii) During the period commencing on the Date of Termination and ending on the 12-month anniversary thereof or, if earlier, the date on which Executive becomes eligible for comparable replacement coverage under a subsequent employer's group health plan (in any case, the "***Non-CIC COBRA Period***"), subject to Executive's valid election to continue healthcare coverage under Section 4980B of the Internal Revenue Code of 1986, as amended (the "***Code***") and the regulations thereunder, the Company shall, in its sole discretion, either (A) continue to provide to Executive and Executive's dependents, at the Company's sole expense, or (B) reimburse Executive and Executive's dependents for coverage under its group health plan (if any) at the same levels in effect on the Date of Termination; *provided, however*, that if (1) any plan pursuant to which such benefits are provided is not, or ceases prior to the expiration of the continuation coverage period to be, exempt from the application of Section 409A under Treasury Regulation Section 1.409A-1(a)(5), (2) the Company is otherwise unable to continue to cover

Executive or Executive's dependents under its group health plans, or (3) the Company cannot provide the benefit without violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), then, in any such case, an amount equal to each remaining Company subsidy shall thereafter be paid to Executive in substantially equal monthly installments over the Non-CIC COBRA Period (or remaining portion thereof).

(c) Severance Payments upon Covered Termination During a Change in Control Period. If, during the Term, Executive experiences a Covered Termination during a Change in Control Period, then, in addition to the payments and benefits described in Section 6(a), the Company shall, subject to Executive's delivery to the Company of a Release that becomes effective and irrevocable in accordance with Section 11(d), provide Executive with the following:

(i) The Company shall pay to Executive an amount equal to the sum of (i) Executive's Annual Base Salary multiplied by 1.5 and (ii) Executive's target Annual Bonus. Such amount will be subject to applicable withholdings and payable in a single lump sum cash payment on the first regular payroll date following the date the Release becomes effective and irrevocable in accordance with Section 11(d).

(ii) During the period commencing on the Date of Termination and ending on the 18-month anniversary thereof or, if earlier, the date on which Executive becomes eligible for comparable replacement coverage under a subsequent employer's group health plan (in any case, the "***CIC COBRA Period***"), subject to Executive's valid election to continue healthcare coverage under Section 4980B of the Code and the regulations thereunder, the Company shall, in its sole discretion, either (A) continue to provide to Executive and Executive's dependents, at the Company's sole expense, or (B) reimburse Executive and Executive's dependents for coverage under its group health plan (if any) at the same levels in effect on the Date of Termination; *provided, however*, that if (1) any plan pursuant to which such benefits are provided is not, or ceases prior to the expiration of the continuation coverage period to be, exempt from the application of Section 409A under Treasury Regulation Section 1.409A-1(a)(5), (2) the Company is otherwise unable to continue to cover Executive or Executive's dependents under its group health plans, or (3) the Company cannot provide the benefit without violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), then, in any such case, an amount equal to each remaining Company subsidy shall thereafter be paid to Executive in substantially equal monthly installments over the CIC COBRA Period (or remaining portion thereof).

(iii) Cause any unvested equity awards, including any stock options, restricted stock awards and any such awards subject to performance-based vesting, held by Executive as of the Date of Termination, to become fully vested and, if applicable, exercisable, and cause all restrictions and rights of repurchase on such awards to lapse with respect to all of the shares of the Company's Common Stock subject thereto.

(d) No Other Severance. The provisions of this Section 6 shall supersede in their entirety any severance payment provisions in any severance plan, policy, program, or other arrangement maintained by the Company except as otherwise approved by the Board.

(e) No Requirement to Mitigate; Survival. Executive shall not be required to mitigate the amount of any payment provided for under this Agreement by seeking other employment or in any other manner. Notwithstanding anything to the contrary in this Agreement, the termination of Executive's employment shall not impair the rights or obligations of any Party.

(f) Definition of Cause. For purposes hereof, "***Cause***" shall mean any one of the following: (i) Executive's material violation of any applicable material law or regulation respecting the business of the Company; (ii) Executive's conviction of, or plea of *nolo contendere* to, a felony or other crime involving moral turpitude; (iii) any act of dishonesty, fraud, or misrepresentation in relation to Executive's duties to the Company which act is materially and demonstrably injurious to the Company; (iv) Executive's willful and repeated failure to perform in any material respect Executive's duties hereunder after 15 days' notice and an opportunity to cure such failure and a reasonable opportunity to present to the Board Executive's position regarding any dispute relating to the existence of such failure (other than on account of disability); (v) Executive's failure to attempt in good faith to implement a clear and reasonable directive from the Board or to comply with any of the Company's policies and procedures which failure is either material or occurs after written notice from the Board; (vi) any act of gross misconduct which is materially and demonstrably injurious to the Company; or (vii) Executive's breach of fiduciary duty owed to the Company.

(g) Definition of Change in Control. For purposes of this Agreement, "***Change in Control***" shall mean (i) the acquisition by any person or group of affiliated or associated persons of more than 50% of the outstanding capital stock of the Company or voting securities representing more than 50% of the total voting power of outstanding securities of the Company; (ii) the consummation of a sale of all or substantially all of the assets of the Company to a third party; (iii) the consummation of any merger involving the Company in which, immediately after giving effect to such merger, less than a majority of the total voting power of outstanding stock of the surviving or resulting entity is then "beneficially owned" (within the meaning of Rule 13d-3 under the Securities Exchange Act of 1934, as amended) in the aggregate by the stockholders of the Company, as applicable, immediately prior to such merger. For the avoidance of doubt and notwithstanding anything herein to the contrary, in no event shall a transaction constitute a "Change in Control" if: (w) its sole purpose is to change the state of the Company's incorporation; (x) its sole purpose is to create a holding company that will be owned in substantially the same proportions by the persons who held the Company's securities immediately before such transaction; (y) it is effected primarily for the purpose of financing the Company with cash (as determined by the Board without regard to whether such transaction is effectuated by a merger, equity financing, or otherwise); or (z) it constitutes, or includes sales of shares in connection with, the initial public offering of the Company's capital stock. Notwithstanding the foregoing, a "Change in Control" must also constitute a "change in control event," as defined in Treasury Regulation §1.409A-3(i)(5).

(h) Definition of Change in Control Period. For purposes hereof, "***Change in Control Period***" shall mean the period of time commencing three months prior to a Change in Control and ending 12 months after such Change in Control.

(i) Definition of Covered Termination. For purposes hereof, "***Covered Termination***" shall mean the termination of Executive's employment by the Company without Cause or by Executive for Good Reason, and shall not include a termination due to Executive's death or disability.

(j) Definition of Good Reason. For purposes hereof, "***Good Reason***" shall mean any one of the following: (i) the material reduction of Executive's base salary or target annual performance bonus, (ii) the assignment to Executive of any duties materially and negatively inconsistent in any respect of Executive's position (including status, offices, titles and reporting requirements), authority, duties or responsibilities, or any other action by the Company which results in a material diminution in such position, authority, duties or responsibilities (including without limitation a requirement to report to any person or entity other than the Board); or (iii) the Company's material breach of this Agreement, *provided*, that, in each case, Executive will not be deemed to have Good Reason unless (1) Executive first provides the Company with written notice of the condition giving rise to Good Reason within 30 days of its initial occurrence, (2) the Company or the successor company fails to cure such condition within 30 days after receiving such written notice (the "***Cure Period***"), and (3) Executive's resignation based on such Good Reason is effective within 30 days after the expiration of the Cure Period.

7. Assignment and Successors. The Company shall assign its rights and obligations under this Agreement to any successor to all or substantially all of the business or the assets of the Company (by merger or otherwise). This Agreement shall be binding upon and inure to the benefit of the Company, Executive, and their respective successors, assigns, personnel, and legal representatives, executors, administrators, heirs, distributees, devisees, and legatees, as applicable. None of Executive's rights or obligations may be assigned or transferred by Executive, other than Executive's rights to payments hereunder, which may be transferred only by will, operation of law, or as otherwise provided herein.

8. Miscellaneous Provisions.

(a) Confidentiality Agreement. Executive hereby affirms Executive's obligations under that certain Proprietary Information and Inventions Assignment Agreement by and between Executive and the Company dated as of September 4, 2015 (the "***Confidentiality Agreement***"). The Confidentiality Agreement shall survive the termination of this Agreement and Executive's employment with the Company for the applicable period(s) set forth therein. Notwithstanding the foregoing, in the event of any conflict between the terms of the Confidentiality Agreement and the terms of this Agreement, the terms of this Agreement shall prevail.

(b) Non-Solicitation of Employees. For a period of one year following Executive's Date of Termination, Executive shall not, either directly or indirectly (i) solicit for employment by any individual, corporation, firm, or other business, any employees, consultants, independent contractors, or other service providers of the Company or any of its affiliates, or (ii) solicit any employee or consultant of the Company or any of its affiliates to leave the employment or consulting of or cease providing services to the Company or any of its affiliates; *provided*, *however*, that the foregoing clauses (i) and (ii) shall not apply to a general advertisement or solicitation (or any hiring pursuant to such advertisement or solicitation) that is not specifically targeted to such employees or consultants.

(c) Governing Law. This Agreement shall be governed, construed, interpreted, and enforced in accordance with its express terms, and otherwise in accordance with the substantive laws of the State of California, without giving effect to any principles of conflicts of law, whether of the State of California or any other jurisdiction, and where applicable, the laws of the United States, that would result in the application of the laws of any other jurisdiction.

(d) Validity. The invalidity or unenforceability of any provision or provisions of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement, which shall remain in full force and effect.

(e) Counterparts. This Agreement may be executed in several counterparts, each of which shall be deemed to be an original, but all of which together will constitute one and the same Agreement. Signatures delivered by facsimile shall be deemed effective for all purposes.

(f) Entire Agreement. The terms of this Agreement, together with the Confidentiality Agreement, are intended by the Parties to be the final expression of their agreement with respect to the employment of Executive by the Company and supersede all prior understandings and agreements, whether written or oral, regarding Executive's service to the Company, including without limitation, the Offer Letter. The Parties further intend that this Agreement, together with the Confidentiality Agreement, shall constitute the complete and exclusive statement of their terms and that no extrinsic evidence whatsoever may be introduced in any judicial, administrative, or other legal proceeding to vary the terms of this Agreement or the Confidentiality Agreement. Notwithstanding the foregoing, in the event of any conflict between the terms of the Confidentiality Agreement and the terms of this Agreement, the terms of this Agreement shall prevail.

(g) Amendments; Waivers. This Agreement may not be modified, amended, or terminated except by an instrument in writing signed by Executive and a duly authorized representative of the Company. By an instrument in writing similarly executed, Executive or a duly authorized officer of the Company, as applicable, may waive compliance by the other Party with any specifically identified provision of this Agreement that such other Party was or is obligated to comply with or perform; *provided*, *however*, that such waiver shall not operate as a waiver of, or estoppel with respect to, any other or subsequent failure. No failure to exercise and no delay in exercising any right, remedy, or power hereunder shall preclude any other or further exercise of any other right, remedy, or power provided herein or by law or in equity.

(h) Dispute Resolution. To ensure the timely and economical resolution of disputes that arise in connection with this Agreement, Executive and the Company agree that any and all controversies, claims and disputes arising out of or relating to this Agreement, including without limitation any alleged violation of its terms, shall be resolved be resolved solely and exclusively by final and binding arbitration held in Alameda County, California through JAMS in conformity with California law and the then-existing JAMS employment arbitration rules, which can be found at https://www.jamsadr.com/rules-employment-arbitration/. The arbitrator shall: (a) provide adequate discovery for the resolution of the dispute; and (b) issue a written arbitration decision, to include the arbitrator's essential findings and conclusions and a statement of the award. The arbitrator shall award the prevailing Party attorneys' fees and expert fees, if any. Notwithstanding the foregoing, it is acknowledged that it will be impossible to measure in money

the damages that would be suffered if the Parties fail to comply with any of the obligations imposed on them under Section 8(a), and that in the event of any such failure, an aggrieved person will be irreparably damaged and will not have an adequate remedy at law. Any such person shall, therefore, be entitled to injunctive relief, including specific performance, to enforce such obligations, and if any action shall be brought in equity to enforce any of the provisions of Section 8(a), none of the Parties shall raise the defense that there is an adequate remedy at law. Executive and the Company understand that by agreement to arbitrate any claim pursuant to this Section 8(h), they will not have the right to have any claim decided by a jury or a court, but shall instead have any claim decided through arbitration. Executive and the Company waive any constitutional or other right to bring claims covered by this Agreement other than in their individual capacities. Except as may be prohibited by applicable law, the foregoing waiver includes the ability to assert claims as a plaintiff or class member in any purported class or representative proceeding.

(i) Enforcement. If any provision of this Agreement is held to be illegal, invalid, or unenforceable under present or future laws, such provision shall be fully severable; this Agreement shall be construed and enforced as if such illegal, invalid, or unenforceable provision had never comprised a portion of this Agreement; and the remaining provisions of this Agreement shall remain in full force and effect and shall not be affected by the illegal, invalid, or unenforceable provision or by its severance from this Agreement. Furthermore, in lieu of such illegal, invalid, or unenforceable provision there shall be added automatically as part of this Agreement a provision as similar in terms to such illegal, invalid, or unenforceable provision as may be possible and be legal, valid, and enforceable.

(j) Withholding. The Company shall be entitled to withhold from any amounts payable under this Agreement any federal, state, local, or foreign withholding or other taxes or charges which the Company is required to withhold. The Company shall be entitled to rely on an opinion of counsel if any questions as to the amount or requirement of withholding shall arise.

(k) Whistleblower Protections and Trade Secrets. Notwithstanding anything to the contrary contained herein, nothing in this Agreement prohibits Executive from reporting possible violations of federal law or regulation to any United States governmental agency or entity in accordance with the provisions of and rules promulgated under Section 21F of the Securities Exchange Act of 1934 or Section 806 of the Sarbanes-Oxley Act of 2002, or any other whistleblower protection provisions of state or federal law or regulation (including the right to receive an award for information provided to any such government agencies). Furthermore, in accordance with 18 U.S.C. § 1833, notwithstanding anything to the contrary in this Agreement: (i) Executive shall not be in breach of this Agreement, and shall not be held criminally or civilly liable under any federal or state trade secret law (x) for the disclosure of a trade secret that is made in confidence to a federal, state, or local government official or to an attorney solely for the purpose of reporting or investigating a suspected violation of law, or (y) for the disclosure of a trade secret that is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal; and (ii) if Executive files a lawsuit for retaliation by the Company for reporting a suspected violation of law, Executive may disclose the trade secret to Executive's attorney, and may use the trade secret information in the court proceeding, if Executive files any document containing the trade secret under seal, and does not disclose the trade secret, except pursuant to court order.

9. Prior Employment. Executive represents and warrants that Executive's acceptance of employment with the Company has not breached, and the performance of Executive's duties hereunder will not breach, any duty owed by Executive to any prior employer or other person. Executive further represents and warrants to the Company that (a) the performance of Executive's obligations hereunder will not violate any agreement between Executive and any other person, firm, organization, or other entity; (b) Executive is not bound by the terms of any agreement with any previous employer or other party to refrain from competing, directly or indirectly, with the business of such previous employer or other party that would be violated by Executive entering into this Agreement and/or providing services to the Company pursuant to the terms of this Agreement; and (c) Executive's performance of Executive's duties under this Agreement will not require Executive to, and Executive shall not, rely on in the performance of Executive's duties or disclose to the Company or any other person or entity or induce the Company in any way to use or rely on any trade secret or other confidential or proprietary information or material belonging to any previous employer of Executive.

10. Golden Parachute Excise Tax.

(a) Best Pay. Any provision of this Agreement to the contrary notwithstanding, if any payment or benefit Executive would receive from the Company pursuant to this Agreement or otherwise ("***Payment***") would (i) constitute a "parachute payment" within the meaning of Section 280G of the Code and (ii) but for this sentence, be subject to the excise tax imposed by Section 4999 of the Code (the "***Excise Tax***"), then such Payment will be equal to the Reduced Amount (as defined below). The "***Reduced Amount***" will be either (A) the largest portion of the Payment that would result in no portion of the Payment (after reduction) being subject to the Excise Tax or (B) the entire Payment, whichever amount after taking into account all applicable federal, state, and local employment taxes, income taxes, and the Excise Tax (all computed at the highest applicable marginal rate, net of the maximum reduction in federal income taxes which could be obtained from a deduction of such state and local taxes), results in Executive' s receipt, on an after-tax basis, of the greater economic benefit notwithstanding that all or some portion of the Payment may be subject to the Excise Tax. If a reduction in a Payment is required pursuant to the preceding sentence and the Reduced Amount is determined pursuant to clause (A) of the preceding sentence, the reduction shall occur in the manner (the "***Reduction Method***") that results in the greatest economic benefit for Executive. If more than one method of reduction will result in the same economic benefit, the items so reduced will be reduced pro rata (the "***Pro Rata Reduction Method***"). Notwithstanding the foregoing, if the Reduction Method or the Pro Rata Reduction Method would result in any portion of the Payment being subject to taxes pursuant to Section 409A (as defined below) that would not otherwise be subject to taxes pursuant to Section 409A, then the Reduction Method and/or the Pro Rata Reduction Method, as the case may be, shall be modified so as to avoid the imposition of taxes pursuant to Section 409A as follows: (1) as a first priority, the modification shall preserve to the greatest extent possible, the greatest economic benefit for Executive as determined on an after-tax basis; (2) as a second priority, Payments that are contingent on future events (*e.g.*, being terminated without cause), shall be reduced (or eliminated) before Payments that are not contingent on future events; and (3) as a third priority, Payments that are "deferred compensation" within the meaning of Section 409A shall be reduced (or eliminated) before Payments that are not deferred compensation within the meaning of Section 409A.

(b) Accounting Firm. The accounting firm engaged by the Company for general tax purposes as of the day prior to the Change in Control will perform the calculations set forth in Section 10(a). If the firm so engaged by the Company is serving as the accountant or auditor for the acquiring company, the Company will appoint a nationally recognized accounting firm to make the determinations required hereunder. The Company will bear all expenses with respect to the determinations by such firm required to be made hereunder. The accounting firm engaged to make the determinations hereunder will provide its calculations, together with detailed supporting documentation, to the Company within 30 days before the consummation of a Change in Control (if requested at that time by the Company) or such other time as requested by the Company. If the accounting firm determines that no Excise Tax is payable with respect to a Payment, either before or after the application of the Reduced Amount, it will furnish the Company with documentation reasonably acceptable to the Company that no Excise Tax will be imposed with respect to such Payment. Any good faith determinations of the accounting firm made hereunder will be final, binding and conclusive upon the Company and Executive.

11. Section 409A.

(a) General. The intent of the Parties is that the payments and benefits under this Agreement comply with or be exempt from Section 409A of the Code and the Department of Treasury regulations and other interpretive guidance issued thereunder, including without limitation any such regulations or other guidance that may be issued after the Effective Date, ("***Section 409A***") and, accordingly, to the maximum extent permitted, this Agreement shall be interpreted to be in compliance therewith. If Executive notifies the Company that Executive has received advice of tax counsel of a national reputation with expertise in Section 409A that any provision of this Agreement would cause Executive to incur any additional tax or interest under Section 409A (with specificity as to the reason therefor) or the Company independently makes such determination, the Company and Executive shall take commercially reasonable efforts to reform such provision to try to comply with or be exempt from Section 409A through good faith modifications to the minimum extent reasonably appropriate to conform with Section 409A, *provided* that any such modifications shall not increase the cost or liability to the Company. To the extent that any provision hereof is modified in order to comply with or be exempt from Section 409A, such modification shall be made in good faith and shall, to the maximum extent reasonably possible, maintain the original intent and economic benefit to Executive and the Company of the applicable provision without violating the provisions of Section 409A.

(b) Separation from Service. Notwithstanding any provision to the contrary in this Agreement: (i) no amount that constitutes "deferred compensation" under Section 409A shall be payable pursuant to Section 6 unless the termination of Executive's employment constitutes a "separation from service" within the meaning of Section 1.409A-1(h) of the Department of Treasury Regulations ("***Separation from Service***"); (ii) for purposes of Section 409A, Executive's right to receive installment payments shall be treated as a right to receive a series of separate and distinct payments; and (iii) to the extent that any reimbursement of expenses or in-kind benefits constitutes "deferred compensation" under Section 409A, such reimbursement or benefit shall be provided no later than December 31st of the year following the year in which the expense was incurred. The amount of expenses reimbursed in one year shall not affect the amount eligible for reimbursement in any subsequent year. The amount of any in-kind benefits provided in one year shall not affect the amount of in-kind benefits provided in any other year.

(c) Specified Employee. Notwithstanding anything in this Agreement to the contrary, if Executive is deemed by the Company at the time of Executive's Separation from Service to be a "specified employee" for purposes of Section 409A, to the extent delayed commencement of any portion of the benefits to which Executive is entitled under this Agreement is required in order to avoid a prohibited distribution under Section 409A, such portion of Executive's benefits shall not be provided to Executive prior to the earlier of (i) the expiration of the six-month period measured from the date of Executive's Separation from Service with the Company or (ii) the date of Executive's death. Upon the first business day following the expiration of the applicable Section 409A period, all payments deferred pursuant to the preceding sentence shall be paid in a lump sum to Executive (or Executive's estate or beneficiaries), and any remaining payments due to Executive under this Agreement shall be paid as otherwise provided herein.

(d) Release. Notwithstanding anything to the contrary in this Agreement, to the extent that any payments due under this Agreement as a result of Executive's termination of employment are subject to Executive's execution and delivery of a Release, (i) the Company shall deliver the Release to Executive within ten business days following Executive's Date of Termination, and the Company's failure to deliver a Release prior to the expiration of such ten business day period shall constitute a waiver of any requirement to execute a Release, (ii) if Executive fails to execute the Release on or prior to the Release Expiration Date (as defined below) or timely revokes Executive's acceptance of the Release thereafter, Executive shall not be entitled to any payments or benefits otherwise conditioned on the Release, and (iii) in any case where Executive's Date of Termination and the Release Expiration Date fall in two separate taxable years, any payments required to be made to Executive that are conditioned on the Release and are treated as nonqualified deferred compensation for purposes of Section 409A shall be made in the later taxable year. For purposes of this Section 11(d), "***Release Expiration Date***" shall mean the date that is 21 days following the date upon which the Company timely delivers the Release to Executive, or, in the event that Executive's termination of employment is "in connection with an exit incentive or other employment termination program" (as such phrase is defined in the Age Discrimination in Employment Act of 1967), the date that is 45 days following such delivery date. To the extent that any payments of nonqualified deferred compensation (within the meaning of Section 409A) due under this Agreement as a result of Executive's termination of employment are delayed pursuant to this Section 11(d), such amounts shall be paid in a lump sum on the first payroll date following the date that Executive executes and does not revoke the Release (and the applicable revocation period has expired) or, in the case of any payments subject to Section 11(d)(iii), on the first payroll period to occur in the subsequent taxable year, if later.

12. Employee Acknowledgement. Executive acknowledges that Executive has read and understands this Agreement, is fully aware of its legal effect, has not acted in reliance upon any representations or promises made by the Company other than those contained in writing herein, and has entered into this Agreement freely based on Executive's own judgment.

[*Signature Page Follows*]

The Parties have executed this Agreement as of the Agreement Date.

GRITSTONE ONCOLOGY, INC.

By: /s/ Jean-Marc Bellemin
Name: Jean-Marc Bellemin
Title: Chief Financial Officer

EXECUTIVE

By: /s/ Andrew Allen
Name: Andrew Allen

Address:

GRITSTONE ONCOLOGY, INC.

EMPLOYMENT AGREEMENT

This Employment Agreement (the "***Agreement***"), entered into as of September 16, 2018 (the "***Agreement Date***"), is between Gritstone Oncology, Inc., a Delaware corporation (the "***Company***") and Matthew Hawryluk ("***Executive***" and, together with the Company, the "***Parties***"). This Agreement will become effective as a binding contract as of the Agreement Date, but the operative provisions of this Agreement will only become effective as of immediately prior to the time the Company's registration statement relating to the initial public offering of the Company's common stock becomes effective (the "***Effective Date***"). This Agreement supersedes in its entirety that certain offer letter between Executive and the Company dated as of October 8, 2015 ("***Offer Letter***").

WHEREAS, the Company desires to assure itself of the continued services of Executive by engaging Executive to perform services as an employee of the Company under the terms hereof;

WHEREAS, Executive desires to provide continued services to the Company on the terms herein provided; and

WHEREAS, the Parties desire to execute this Agreement to supersede the Offer Letter in its entirety and reflect certain changes to Executive's employment with the Company effective as of the Effective Date.

NOW, THEREFORE, in consideration of the foregoing, and for other good and valuable consideration, including the respective covenants and agreements set forth below, the receipt and sufficiency of which are hereby acknowledged, the Parties hereto agree as follows:

1. Employment.

(a) General. The Company shall employ Executive upon the terms and conditions provided herein effective as of the Effective Date.

(b) Position and Duties. Effective on the Effective Date, Executive: (i) shall continue to serve as the Company's Executive Vice President and Chief Business Officer, with responsibilities, duties, and authority usual and customary for such position, subject to direction by the Chief Executive Officer of the Company (the "***CEO***"); (ii) shall continue to report directly to the CEO; and (iii) agrees promptly and faithfully to comply with all present and future policies, requirements, rules and regulations, and reasonable directions and requests, of the Company in connection with the Company's business. At the Company's request, Executive shall serve the Company and/or its subsidiaries and affiliates in such other capacities in addition to the foregoing as the Company shall designate, provided that such additional capacities are consistent with Executive's position as the Company's Executive Vice President and Chief Business Officer. In the event that Executive serves in any one or more of such additional capacities, Executive's compensation shall not automatically be increased on account of such additional service.

(c) Performance of Executive's Duties. During Executive's employment with the Company, and except for periods of illness, vacation, disability, or reasonable leaves of absence or as discussed in Section 1(e), Executive shall devote Executive's full time and attention to the business and affairs of the Company pursuant to the general direction of the CEO. The rights of Executive under this Agreement shall not be affected by any change in the title, duties, or capacity of Executive during Executive's employment with the Company.

(d) Principal Office. Executive will work principally at the Company's facility located in Cambridge, Massachusetts.

(e) Exclusivity. Except with the prior written approval of the CEO (which the CEO may grant or withhold in his or her sole and absolute discretion), Executive shall devote substantially all of Executive's working time, attention, and energies to the business of the Company, except during any paid vacation or other excused absence periods. Nothing in this section prevents Executive from engaging in additional activities in connection with personal investments and community affairs. Executive may also serve as a member of the board of directors or board of advisors of another organization provided (i) such organization is not a competitor of the Company; (ii) Executive receives prior written approval from the Company's CEO; and (iii) such activities do not individually or in the aggregate interfere with the performance of Executive's duties under this Agreement, violate the Company's standards of conduct then in effect, or raise a conflict under the Company's conflict of interest policies.

2. Term. The period of Executive's employment under this Agreement shall commence on the Effective Date and shall continue until Executive's employment with the Company is terminated pursuant to Section 5. The phrase "***Term***" as used in this Agreement shall refer to the entire period of employment of Executive by the Company.

3. Compensation and Related Matters.

(a) Annual Base Salary. During the Term, Executive shall receive a base salary at the rate of $291,748 per year (as may be increased from time to time, the "***Annual Base Salary***"), subject to withholdings and deductions, which shall be paid to Executive in accordance with the customary payroll practices and procedures of the Company. Such Annual Base Salary shall be reviewed by the CEO, and, as applicable, the Board of Directors of the Company (the "***Board***") and/or the Compensation Committee of the Board, not less than annually.

(b) Annual Bonus. Executive shall be eligible to receive a discretionary annual bonus based on Executive's achievement of performance objectives as mutually agreed between Executive and the CEO, such bonus to be targeted at 35% of Executive's Annual Base Salary (the "***Annual Bonus***"). Any Annual Bonus approved by the Board, the Compensation Committee of the Board and/or the CEO shall be paid at the same time annual bonuses are paid to other executives of the Company generally, subject to Executive's continuous employment through the date of approval.

(c) Benefits. Executive shall be entitled to participate in such employee and executive benefit plans and programs as the Company may from time to time offer to provide to its executives, subject to the terms and conditions of such plans. Notwithstanding the foregoing, nothing herein is intended, or shall be construed, to require the Company to institute or continue any, or any particular, plan or benefit.

(d) Business Expenses. The Company shall reimburse Executive for all reasonable, documented, out-of-pocket travel and other business expenses incurred by Executive in the performance of Executive's duties to the Company in accordance with the Company's applicable expense reimbursement policies and procedures as are in effect from time to time.

(e) Vacation. Executive will be entitled to paid vacation in accordance with the Company's vacation policy.

4. Equity Awards. Executive shall be eligible for such stock options and equity awards as may be determined by the Company, in its sole discretion.

5. Termination.

(a) At-Will Employment. The Company and Executive acknowledge that Executive's employment is and shall continue to be at-will, as defined under applicable law. This means that it is not for any specified period of time and can be terminated by Executive or by the Company at any time, with or without advance notice, and for any or no particular reason or cause. It also means that Executive's job duties, title, and responsibility and reporting level, work schedule, compensation, and benefits, as well as the Company's personnel policies and procedures, may be changed with prospective effect, with or without notice, at any time in the sole discretion of the Company (subject to any ramification such changes may have under Section 6 of this Agreement). This "at-will" nature of Executive's employment shall remain unchanged during Executive's tenure as an employee and may not be changed, except in an express writing signed by Executive and a duly-authorized officer of the Company. If Executive's employment terminates for any lawful reason, Executive shall not be entitled to any payments, benefits, damages, award, or compensation other than as provided in this Agreement.

(b) Notice of Termination. During the Term, any termination of Executive's employment by the Company or by Executive (other than by reason of death) shall be communicated by written notice (a "***Notice of Termination***") from one Party hereto to the other Party hereto (i) indicating the specific termination provision in this Agreement relied upon, if any, (ii) setting forth in reasonable detail the facts and circumstances claimed to provide a basis for termination of Executive's employment under the provision so indicated, and (iii) specifying the Date of Termination (as defined below). The failure by the Company to set forth in the Notice of Termination all of the facts and circumstances which contribute to a showing of Cause (as defined below) shall not waive any right of the Company hereunder or preclude the Company from asserting such fact or circumstance in enforcing their rights hereunder.

(c) Date of Termination. For purposes of this Agreement, "***Date of Termination***" shall mean the date of the termination of Executive's employment with the Company specified in a Notice of Termination.

(d) Deemed Resignation. Upon termination of Executive's employment for any reason, Executive shall be deemed to have resigned from all offices and board memberships, if any, then held with the Company or any of its affiliates, and, at the Company's request, Executive shall execute such documents as are necessary or desirable to effectuate such resignations.

6. Consequences of Termination.

(a) Payments of Accrued Obligations upon all Terminations of Employment. Upon a termination of Executive's employment for any reason, Executive (or Executive's estate or legal representative, as applicable) shall be entitled to receive, within 30 days after Executive's Date of Termination (or such earlier date as may be required by applicable law): (i) any portion of Executive's Annual Base Salary earned through Executive's Date of Termination not theretofore paid, (ii) any expenses owed to Executive under Section 3, (iii) any accrued but unused paid time-off owed to Executive, (iv) any Annual Bonus approved by the Board, Compensation Committee of the Board and/or the CEO on or prior to the Date of Termination but unpaid as of the Date of Termination, and (v) any amount arising from Executive's participation in, or benefits under, any employee benefit plans, programs, or arrangements under Section 3, which amounts shall be payable in accordance with the terms and conditions of such employee benefit plans, programs, or arrangements. Except as otherwise set forth in Sections 6(b) and (c), the payments and benefits described in this Section 6(a) shall be the only payments and benefits payable in the event of Executive's termination of employment for any reason.

(b) Severance Payments upon Covered Termination Outside a Change in Control Period. If, during the Term, Executive experiences a Covered Termination outside a Change in Control Period (each as defined below), then in addition to the payments and benefits described in Section 6(a), the Company shall, subject to Executive's delivery to the Company of a waiver and release of claims agreement in a form approved by the Company (a "***Release***") that becomes effective and irrevocable in accordance with Section 11(d), provide Executive with the following:

(i) The Company shall pay to Executive an amount equal to the sum of (i) Executive's Annual Base Salary multiplied by 0.75 and (ii) Executive's target Annual Bonus. Such amount will be subject to applicable withholdings and payable in a single lump sum cash payment on the first regular payroll date following the date the Release becomes effective and irrevocable in accordance with Section 11(d).

(ii) During the period commencing on the Date of Termination and ending on the nine-month anniversary thereof or, if earlier, the date on which Executive becomes eligible for comparable replacement coverage under a subsequent employer's group health plan (in any case, the "***Non-CIC COBRA Period***"), subject to Executive's valid election to continue healthcare coverage under Section 4980B of the Internal Revenue Code of 1986, as amended (the "***Code***") and the regulations thereunder, the Company shall, in its sole discretion, either (A) continue to provide to Executive and Executive's dependents, at the Company's sole expense, or (B) reimburse Executive and Executive's dependents for coverage under its group health plan (if any) at the same levels in effect on the Date of Termination; *provided, however*, that if (1) any plan pursuant to which such benefits are provided is not, or ceases prior to the expiration of the continuation coverage period to be, exempt from the application of Section 409A under Treasury Regulation Section 1.409A-1(a)(5), (2) the Company is otherwise unable to continue to cover Executive or Executive's dependents under its group health plans, or (3) the Company cannot provide the benefit without violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), then, in any such case, an amount equal to each remaining Company subsidy shall thereafter be paid to Executive in substantially equal monthly installments over the Non-CIC COBRA Period (or remaining portion thereof).

(c) Severance Payments upon Covered Termination During a Change in Control Period. If, during the Term, Executive experiences a Covered Termination during a Change in Control Period, then, in addition to the payments and benefits described in Section 6(a), the Company shall, subject to Executive's delivery to the Company of a Release that becomes effective and irrevocable in accordance with Section 11(d), provide Executive with the following:

(i) The Company shall pay to Executive an amount equal to the sum of (i) Executive's Annual Base Salary and (ii) Executive's target Annual Bonus. Such amount will be subject to applicable withholdings and payable in a single lump sum cash payment on the first regular payroll date following the date the Release becomes effective and irrevocable in accordance with Section 11(d).

(ii) During the period commencing on the Date of Termination and ending on the 12-month anniversary thereof or, if earlier, the date on which Executive becomes eligible for comparable replacement coverage under a subsequent employer's group health plan (in any case, the "***CIC COBRA Period***"), subject to Executive's valid election to continue healthcare coverage under Section 4980B of the Code and the regulations thereunder, the Company shall, in its sole discretion, either (A) continue to provide to Executive and Executive's dependents, at the Company's sole expense, or (B) reimburse Executive and Executive's dependents for coverage under its group health plan (if any) at the same levels in effect on the Date of Termination; *provided, however*, that if (1) any plan pursuant to which such benefits are provided is not, or ceases prior to the expiration of the continuation coverage period to be, exempt from the application of Section 409A under Treasury Regulation Section 1.409A-1(a)(5), (2) the Company is otherwise unable to continue to cover Executive or Executive's dependents under its group health plans, or (3) the Company cannot provide the benefit without violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), then, in any such case, an amount equal to each remaining Company subsidy shall thereafter be paid to Executive in substantially equal monthly installments over the CIC COBRA Period (or remaining portion thereof).

(iii) Cause any unvested equity awards, including any stock options, restricted stock awards and any such awards subject to performance-based vesting, held by Executive as of the Date of Termination, to become fully vested and, if applicable, exercisable, and cause all restrictions and rights of repurchase on such awards to lapse with respect to all of the shares of the Company's Common Stock subject thereto.

(d) No Other Severance. The provisions of this Section 6 shall supersede in their entirety any severance payment provisions in any severance plan, policy, program, or other arrangement maintained by the Company except as otherwise approved by the Board.

(e) No Requirement to Mitigate; Survival. Executive shall not be required to mitigate the amount of any payment provided for under this Agreement by seeking other employment or in any other manner. Notwithstanding anything to the contrary in this Agreement, the termination of Executive's employment shall not impair the rights or obligations of any Party.

(f) Definition of Cause. For purposes hereof, "***Cause***" shall mean any one of the following: (i) Executive's material violation of any applicable material law or regulation respecting the business of the Company; (ii) Executive's conviction of, or plea of *nolo contendere* to, a felony or other crime involving moral turpitude; (iii) any act of dishonesty, fraud, or misrepresentation in relation to Executive's duties to the Company which act is materially and demonstrably injurious to the Company; (iv) Executive's willful and repeated failure to perform in any material respect Executive's duties hereunder after 15 days' notice and an opportunity to cure such failure and a reasonable opportunity to present to the Board Executive's position regarding any dispute relating to the existence of such failure (other than on account of disability); (v) Executive's failure to attempt in good faith to implement a clear and reasonable directive from the CEO or to comply with any of the Company's policies and procedures which failure is either material or occurs after written notice from the CEO; (vi) any act of gross misconduct which is materially and demonstrably injurious to the Company; or (vii) Executive's breach of fiduciary duty owed to the Company.

(g) Definition of Change in Control. For purposes of this Agreement, "***Change in Control***" shall mean (i) the acquisition by any person or group of affiliated or associated persons of more than 50% of the outstanding capital stock of the Company or voting securities representing more than 50% of the total voting power of outstanding securities of the Company; (ii) the consummation of a sale of all or substantially all of the assets of the Company to a third party; (iii) the consummation of any merger involving the Company in which, immediately after giving effect to such merger, less than a majority of the total voting power of outstanding stock of the surviving or resulting entity is then "beneficially owned" (within the meaning of Rule 13d-3 under the Securities Exchange Act of 1934, as amended) in the aggregate by the stockholders of the Company, as applicable, immediately prior to such merger. For the avoidance of doubt and notwithstanding anything herein to the contrary, in no event shall a transaction constitute a "Change in Control" if: (w) its sole purpose is to change the state of the Company's incorporation; (x) its sole purpose is to create a holding company that will be owned in substantially the same proportions by the persons who held the Company's securities immediately before such transaction; (y) it is effected primarily for the purpose of financing the Company with cash (as determined by the Board without regard to whether such transaction is effectuated by a merger, equity financing, or otherwise); or (z) it constitutes, or includes sales of shares in connection with, the initial public offering of the Company's capital stock. Notwithstanding the foregoing, a "Change in Control" must also constitute a "change in control event," as defined in Treasury Regulation §1.409A-3(i)(5).

(h) Definition of Change in Control Period. For purposes hereof, "***Change in Control Period***" shall mean the period of time commencing three months prior to a Change in Control and ending 12 months after such Change in Control.

(i) Definition of Covered Termination. For purposes hereof, "***Covered Termination***" shall mean the termination of Executive's employment by the Company without Cause or by Executive for Good Reason, and shall not include a termination due to Executive's death or disability.

(j) Definition of Good Reason. For purposes hereof, "***Good Reason***" shall mean any one of the following: (i) the material reduction of Executive's base salary or target annual performance bonus, (ii) the assignment to Executive of any duties materially and negatively inconsistent in any respect of Executive's position (including status, offices, titles and reporting requirements), authority, duties or responsibilities, or any other action by the Company which results in a material diminution in such position, authority, duties or responsibilities (including without limitation a requirement to report to any person or entity other than the CEO); or (iii) the Company's material breach of this Agreement, *provided*, that, in each case, Executive will not be deemed to have Good Reason unless (1) Executive first provides the Company with written notice of the condition giving rise to Good Reason within 30 days of its initial occurrence, (2) the Company or the successor company fails to cure such condition within 30 days after receiving such written notice (the "***Cure Period***"), and (3) Executive's resignation based on such Good Reason is effective within 30 days after the expiration of the Cure Period.

7. Assignment and Successors. The Company shall assign its rights and obligations under this Agreement to any successor to all or substantially all of the business or the assets of the Company (by merger or otherwise). This Agreement shall be binding upon and inure to the benefit of the Company, Executive, and their respective successors, assigns, personnel, and legal representatives, executors, administrators, heirs, distributees, devisees, and legatees, as applicable. None of Executive's rights or obligations may be assigned or transferred by Executive, other than Executive's rights to payments hereunder, which may be transferred only by will, operation of law, or as otherwise provided herein.

8. Miscellaneous Provisions.

(a) Confidentiality Agreement. Executive hereby affirms Executive's obligations under that certain Proprietary Information and Inventions Assignment Agreement by and between Executive and the Company dated as of October 21, 2015 (the "***Confidentiality Agreement***"). The Confidentiality Agreement shall survive the termination of this Agreement and Executive's employment with the Company for the applicable period(s) set forth therein. Notwithstanding the foregoing, in the event of any conflict between the terms of the Confidentiality Agreement and the terms of this Agreement, the terms of this Agreement shall prevail.

(b) Non-Solicitation of Employees. For a period of one year following Executive's Date of Termination, Executive shall not, either directly or indirectly (i) solicit for employment by any individual, corporation, firm, or other business, any employees, consultants, independent contractors, or other service providers of the Company or any of its affiliates, or (ii) solicit any employee or consultant of the Company or any of its affiliates to leave the employment or consulting of or cease providing services to the Company or any of its affiliates; *provided*, *however*, that the foregoing clauses (i) and (ii) shall not apply to a general advertisement or solicitation (or any hiring pursuant to such advertisement or solicitation) that is not specifically targeted to such employees or consultants.

(c) Governing Law. This Agreement shall be governed, construed, interpreted, and enforced in accordance with its express terms, and otherwise in accordance with the substantive laws of the State of California, without giving effect to any principles of conflicts of law, whether of the State of California or any other jurisdiction, and where applicable, the laws of the United States, that would result in the application of the laws of any other jurisdiction.

(d) Validity. The invalidity or unenforceability of any provision or provisions of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement, which shall remain in full force and effect.

(e) Counterparts. This Agreement may be executed in several counterparts, each of which shall be deemed to be an original, but all of which together will constitute one and the same Agreement. Signatures delivered by facsimile shall be deemed effective for all purposes.

(f) Entire Agreement. The terms of this Agreement, together with the Confidentiality Agreement, are intended by the Parties to be the final expression of their agreement with respect to the employment of Executive by the Company and supersede all prior understandings and agreements, whether written or oral, regarding Executive's service to the Company, including without limitation, the Offer Letter. The Parties further intend that this Agreement, together with the Confidentiality Agreement, shall constitute the complete and exclusive statement of their terms and that no extrinsic evidence whatsoever may be introduced in any judicial, administrative, or other legal proceeding to vary the terms of this Agreement or the Confidentiality Agreement. Notwithstanding the foregoing, in the event of any conflict between the terms of the Confidentiality Agreement and the terms of this Agreement, the terms of this Agreement shall prevail.

(g) Amendments; Waivers. This Agreement may not be modified, amended, or terminated except by an instrument in writing signed by Executive and a duly authorized representative of the Company. By an instrument in writing similarly executed, Executive or a duly authorized officer of the Company, as applicable, may waive compliance by the other Party with any specifically identified provision of this Agreement that such other Party was or is obligated to comply with or perform; *provided*, *however*, that such waiver shall not operate as a waiver of, or estoppel with respect to, any other or subsequent failure. No failure to exercise and no delay in exercising any right, remedy, or power hereunder shall preclude any other or further exercise of any other right, remedy, or power provided herein or by law or in equity.

(h) Dispute Resolution. To ensure the timely and economical resolution of disputes that arise in connection with this Agreement, Executive and the Company agree that any and all controversies, claims and disputes arising out of or relating to this Agreement, including without limitation any alleged violation of its terms, shall be resolved be resolved solely and exclusively by final and binding arbitration held in Alameda County, California through JAMS in conformity with California law and the then-existing JAMS employment arbitration rules, which can be found at https://www.jamsadr.com/rules-employment-arbitration/. The arbitrator shall: (a) provide adequate discovery for the resolution of the dispute; and (b) issue a written arbitration decision, to include the arbitrator's essential findings and conclusions and a statement of the award. The arbitrator shall award the prevailing Party attorneys' fees and expert fees, if any. Notwithstanding the foregoing, it is acknowledged that it will be impossible to measure in money the damages that would be suffered if the Parties fail to comply with any of the obligations imposed on them under Section 8(a), and that in the event of any such failure, an aggrieved person will be irreparably damaged and will not have an adequate remedy at law. Any such person shall,

therefore, be entitled to injunctive relief, including specific performance, to enforce such obligations, and if any action shall be brought in equity to enforce any of the provisions of Section 8(a), none of the Parties shall raise the defense that there is an adequate remedy at law. Executive and the Company understand that by agreement to arbitrate any claim pursuant to this Section 8(h), they will not have the right to have any claim decided by a jury or a court, but shall instead have any claim decided through arbitration. Executive and the Company waive any constitutional or other right to bring claims covered by this Agreement other than in their individual capacities. Except as may be prohibited by applicable law, the foregoing waiver includes the ability to assert claims as a plaintiff or class member in any purported class or representative proceeding.

(i) Enforcement. If any provision of this Agreement is held to be illegal, invalid, or unenforceable under present or future laws, such provision shall be fully severable; this Agreement shall be construed and enforced as if such illegal, invalid, or unenforceable provision had never comprised a portion of this Agreement; and the remaining provisions of this Agreement shall remain in full force and effect and shall not be affected by the illegal, invalid, or unenforceable provision or by its severance from this Agreement. Furthermore, in lieu of such illegal, invalid, or unenforceable provision there shall be added automatically as part of this Agreement a provision as similar in terms to such illegal, invalid, or unenforceable provision as may be possible and be legal, valid, and enforceable.

(j) Withholding. The Company shall be entitled to withhold from any amounts payable under this Agreement any federal, state, local, or foreign withholding or other taxes or charges which the Company is required to withhold. The Company shall be entitled to rely on an opinion of counsel if any questions as to the amount or requirement of withholding shall arise.

(k) Whistleblower Protections and Trade Secrets. Notwithstanding anything to the contrary contained herein, nothing in this Agreement prohibits Executive from reporting possible violations of federal law or regulation to any United States governmental agency or entity in accordance with the provisions of and rules promulgated under Section 21F of the Securities Exchange Act of 1934 or Section 806 of the Sarbanes-Oxley Act of 2002, or any other whistleblower protection provisions of state or federal law or regulation (including the right to receive an award for information provided to any such government agencies). Furthermore, in accordance with 18 U.S.C. § 1833, notwithstanding anything to the contrary in this Agreement: (i) Executive shall not be in breach of this Agreement, and shall not be held criminally or civilly liable under any federal or state trade secret law (x) for the disclosure of a trade secret that is made in confidence to a federal, state, or local government official or to an attorney solely for the purpose of reporting or investigating a suspected violation of law, or (y) for the disclosure of a trade secret that is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal; and (ii) if Executive files a lawsuit for retaliation by the Company for reporting a suspected violation of law, Executive may disclose the trade secret to Executive's attorney, and may use the trade secret information in the court proceeding, if Executive files any document containing the trade secret under seal, and does not disclose the trade secret, except pursuant to court order.

9. Prior Employment. Executive represents and warrants that Executive's acceptance of employment with the Company has not breached, and the performance of Executive's duties hereunder will not breach, any duty owed by Executive to any prior employer or other person. Executive further represents and warrants to the Company that (a) the performance of Executive's obligations hereunder will not violate any agreement between Executive and any other person, firm, organization, or other entity; (b) Executive is not bound by the terms of any agreement with any previous employer or other party to refrain from competing, directly or indirectly, with the business of such previous employer or other party that would be violated by Executive entering into this Agreement and/or providing services to the Company pursuant to the terms of this Agreement; and (c) Executive's performance of Executive's duties under this Agreement will not require Executive to, and Executive shall not, rely on in the performance of Executive's duties or disclose to the Company or any other person or entity or induce the Company in any way to use or rely on any trade secret or other confidential or proprietary information or material belonging to any previous employer of Executive.

10. Golden Parachute Excise Tax.

(a) Best Pay. Any provision of this Agreement to the contrary notwithstanding, if any payment or benefit Executive would receive from the Company pursuant to this Agreement or otherwise ("***Payment***") would (i) constitute a "parachute payment" within the meaning of Section 280G of the Code and (ii) but for this sentence, be subject to the excise tax imposed by Section 4999 of the Code (the "***Excise Tax***"), then such Payment will be equal to the Reduced Amount (as defined below). The "***Reduced Amount***" will be either (A) the largest portion of the Payment that would result in no portion of the Payment (after reduction) being subject to the Excise Tax or (B) the entire Payment, whichever amount after taking into account all applicable federal, state, and local employment taxes, income taxes, and the Excise Tax (all computed at the highest applicable marginal rate, net of the maximum reduction in federal income taxes which could be obtained from a deduction of such state and local taxes), results in Executive' s receipt, on an after-tax basis, of the greater economic benefit notwithstanding that all or some portion of the Payment may be subject to the Excise Tax. If a reduction in a Payment is required pursuant to the preceding sentence and the Reduced Amount is determined pursuant to clause (A) of the preceding sentence, the reduction shall occur in the manner (the "***Reduction Method***") that results in the greatest economic benefit for Executive. If more than one method of reduction will result in the same economic benefit, the items so reduced will be reduced pro rata (the "***Pro Rata Reduction Method***"). Notwithstanding the foregoing, if the Reduction Method or the Pro Rata Reduction Method would result in any portion of the Payment being subject to taxes pursuant to Section 409A (as defined below) that would not otherwise be subject to taxes pursuant to Section 409A, then the Reduction Method and/or the Pro Rata Reduction Method, as the case may be, shall be modified so as to avoid the imposition of taxes pursuant to Section 409A as follows: (1) as a first priority, the modification shall preserve to the greatest extent possible, the greatest economic benefit for Executive as determined on an after-tax basis; (2) as a second priority, Payments that are contingent on future events (*e.g.*, being terminated without cause), shall be reduced (or eliminated) before Payments that are not contingent on future events; and (3) as a third priority, Payments that are "deferred compensation" within the meaning of Section 409A shall be reduced (or eliminated) before Payments that are not deferred compensation within the meaning of Section 409A.

(b) Accounting Firm. The accounting firm engaged by the Company for general tax purposes as of the day prior to the Change in Control will perform the calculations set forth in Section 10(a). If the firm so engaged by the Company is serving as the accountant or auditor for the acquiring company, the Company will appoint a nationally recognized accounting

firm to make the determinations required hereunder. The Company will bear all expenses with respect to the determinations by such firm required to be made hereunder. The accounting firm engaged to make the determinations hereunder will provide its calculations, together with detailed supporting documentation, to the Company within 30 days before the consummation of a Change in Control (if requested at that time by the Company) or such other time as requested by the Company. If the accounting firm determines that no Excise Tax is payable with respect to a Payment, either before or after the application of the Reduced Amount, it will furnish the Company with documentation reasonably acceptable to the Company that no Excise Tax will be imposed with respect to such Payment. Any good faith determinations of the accounting firm made hereunder will be final, binding and conclusive upon the Company and Executive.

11. Section 409A.

(a) General. The intent of the Parties is that the payments and benefits under this Agreement comply with or be exempt from Section 409A of the Code and the Department of Treasury regulations and other interpretive guidance issued thereunder, including without limitation any such regulations or other guidance that may be issued after the Effective Date, ("***Section 409A***") and, accordingly, to the maximum extent permitted, this Agreement shall be interpreted to be in compliance therewith. If Executive notifies the Company that Executive has received advice of tax counsel of a national reputation with expertise in Section 409A that any provision of this Agreement would cause Executive to incur any additional tax or interest under Section 409A (with specificity as to the reason therefor) or the Company independently makes such determination, the Company and Executive shall take commercially reasonable efforts to reform such provision to try to comply with or be exempt from Section 409A through good faith modifications to the minimum extent reasonably appropriate to conform with Section 409A, *provided* that any such modifications shall not increase the cost or liability to the Company. To the extent that any provision hereof is modified in order to comply with or be exempt from Section 409A, such modification shall be made in good faith and shall, to the maximum extent reasonably possible, maintain the original intent and economic benefit to Executive and the Company of the applicable provision without violating the provisions of Section 409A.

(b) Separation from Service. Notwithstanding any provision to the contrary in this Agreement: (i) no amount that constitutes "deferred compensation" under Section 409A shall be payable pursuant to Section 6 unless the termination of Executive's employment constitutes a "separation from service" within the meaning of Section 1.409A-1(h) of the Department of Treasury Regulations ("***Separation from Service***"); (ii) for purposes of Section 409A, Executive's right to receive installment payments shall be treated as a right to receive a series of separate and distinct payments; and (iii) to the extent that any reimbursement of expenses or in-kind benefits constitutes "deferred compensation" under Section 409A, such reimbursement or benefit shall be provided no later than December 31st of the year following the year in which the expense was incurred. The amount of expenses reimbursed in one year shall not affect the amount eligible for reimbursement in any subsequent year. The amount of any in-kind benefits provided in one year shall not affect the amount of in-kind benefits provided in any other year.

(c) Specified Employee. Notwithstanding anything in this Agreement to the contrary, if Executive is deemed by the Company at the time of Executive's Separation from Service to be a "specified employee" for purposes of Section 409A, to the extent delayed commencement of any portion of the benefits to which Executive is entitled under this Agreement is required in order to avoid a prohibited distribution under Section 409A, such portion of Executive's benefits shall not be provided to Executive prior to the earlier of (i) the expiration of the six-month period measured from the date of Executive's Separation from Service with the Company or (ii) the date of Executive's death. Upon the first business day following the expiration of the applicable Section 409A period, all payments deferred pursuant to the preceding sentence shall be paid in a lump sum to Executive (or Executive's estate or beneficiaries), and any remaining payments due to Executive under this Agreement shall be paid as otherwise provided herein.

(d) Release. Notwithstanding anything to the contrary in this Agreement, to the extent that any payments due under this Agreement as a result of Executive's termination of employment are subject to Executive's execution and delivery of a Release, (i) the Company shall deliver the Release to Executive within ten business days following Executive's Date of Termination, and the Company's failure to deliver a Release prior to the expiration of such ten business day period shall constitute a waiver of any requirement to execute a Release, (ii) if Executive fails to execute the Release on or prior to the Release Expiration Date (as defined below) or timely revokes Executive's acceptance of the Release thereafter, Executive shall not be entitled to any payments or benefits otherwise conditioned on the Release, and (iii) in any case where Executive's Date of Termination and the Release Expiration Date fall in two separate taxable years, any payments required to be made to Executive that are conditioned on the Release and are treated as nonqualified deferred compensation for purposes of Section 409A shall be made in the later taxable year. For purposes of this Section 11(d), "***Release Expiration Date***" shall mean the date that is 21 days following the date upon which the Company timely delivers the Release to Executive, or, in the event that Executive's termination of employment is "in connection with an exit incentive or other employment termination program" (as such phrase is defined in the Age Discrimination in Employment Act of 1967), the date that is 45 days following such delivery date. To the extent that any payments of nonqualified deferred compensation (within the meaning of Section 409A) due under this Agreement as a result of Executive's termination of employment are delayed pursuant to this Section 11(d), such amounts shall be paid in a lump sum on the first payroll date following the date that Executive executes and does not revoke the Release (and the applicable revocation period has expired) or, in the case of any payments subject to Section 11(d)(iii), on the first payroll period to occur in the subsequent taxable year, if later.

12. Employee Acknowledgement. Executive acknowledges that Executive has read and understands this Agreement, is fully aware of its legal effect, has not acted in reliance upon any representations or promises made by the Company other than those contained in writing herein, and has entered into this Agreement freely based on Executive's own judgment.

[*Signature Page Follows*]

The Parties have executed this Agreement as of the Agreement Date.

GRITSTONE ONCOLOGY, INC.

By: /s/ Andrew Allen
Name: Andrew Allen
Title: President and Chief Executive Officer

EXECUTIVE

By: /s/ Matthew Hawryluk
Name: Matthew Hawryluk

Address:

GRITSTONE ONCOLOGY, INC.

EMPLOYMENT AGREEMENT

This Employment Agreement (the "***Agreement***"), entered into as of September 16, 2018 (the "***Agreement Date***"), is between Gritstone Oncology, Inc., a Delaware corporation (the "***Company***") and Karin Jooss ("***Executive***" and, together with the Company, the "***Parties***"). This Agreement will become effective as a binding contract as of the Agreement Date, but the operative provisions of this Agreement will only become effective as of immediately prior to the time the Company's registration statement relating to the initial public offering of the Company's common stock becomes effective (the "***Effective Date***"). This Agreement supersedes in its entirety that certain offer letter between Executive and the Company dated as of February 29, 2016 ("***Offer Letter***").

WHEREAS, the Company desires to assure itself of the continued services of Executive by engaging Executive to perform services as an employee of the Company under the terms hereof;

WHEREAS, Executive desires to provide continued services to the Company on the terms herein provided; and

WHEREAS, the Parties desire to execute this Agreement to supersede the Offer Letter in its entirety and reflect certain changes to Executive's employment with the Company effective as of the Effective Date.

NOW, THEREFORE, in consideration of the foregoing, and for other good and valuable consideration, including the respective covenants and agreements set forth below, the receipt and sufficiency of which are hereby acknowledged, the Parties hereto agree as follows:

1. Employment.

(a) General. The Company shall employ Executive upon the terms and conditions provided herein effective as of the Effective Date.

(b) Position and Duties. Effective on the Effective Date, Executive: (i) shall continue to serve as the Company's Executive Vice President of Research and Chief Scientific Officer, with responsibilities, duties, and authority usual and customary for such position, subject to direction by the Chief Executive Officer of the Company (the "***CEO***"); (ii) shall continue to report directly to the CEO; and (iii) agrees promptly and faithfully to comply with all present and future policies, requirements, rules and regulations, and reasonable directions and requests, of the Company in connection with the Company's business. At the Company's request, Executive shall serve the Company and/or its subsidiaries and affiliates in such other capacities in addition to the foregoing as the Company shall designate, provided that such additional capacities are consistent with Executive's position as the Company's Executive Vice President of Research and Chief Scientific Officer. In the event that Executive serves in any one or more of such additional capacities, Executive's compensation shall not automatically be increased on account of such additional service.

(c) Performance of Executive's Duties. During Executive's employment with the Company, and except for periods of illness, vacation, disability, or reasonable leaves of absence or as discussed in Section 1(e), Executive shall devote Executive's full time and attention to the business and affairs of the Company pursuant to the general direction of the CEO. The rights of Executive under this Agreement shall not be affected by any change in the title, duties, or capacity of Executive during Executive's employment with the Company.

(d) Principal Office. Executive will work principally at the Company's facility located in Emeryville, California.

(e) Exclusivity. Except with the prior written approval of the CEO (which the CEO may grant or withhold in his or her sole and absolute discretion), Executive shall devote substantially all of Executive's working time, attention, and energies to the business of the Company, except during any paid vacation or other excused absence periods. Nothing in this section prevents Executive from engaging in additional activities in connection with personal investments and community affairs. Executive may also serve as a member of the board of directors or board of advisors of another organization provided (i) such organization is not a competitor of the Company; (ii) Executive receives prior written approval from the Company's CEO; and (iii) such activities do not individually or in the aggregate interfere with the performance of Executive's duties under this Agreement, violate the Company's standards of conduct then in effect, or raise a conflict under the Company's conflict of interest policies.

2. Term. The period of Executive's employment under this Agreement shall commence on the Effective Date and shall continue until Executive's employment with the Company is terminated pursuant to Section 5. The phrase "***Term***" as used in this Agreement shall refer to the entire period of employment of Executive by the Company.

3. Compensation and Related Matters.

(a) Annual Base Salary. During the Term, Executive shall receive a base salary at the rate of $381,924 per year (as may be increased from time to time, the "***Annual Base Salary***"), subject to withholdings and deductions, which shall be paid to Executive in accordance with the customary payroll practices and procedures of the Company. Such Annual Base Salary shall be reviewed by the CEO, and, as applicable, the Board of Directors of the Company (the "***Board***") and/or the Compensation Committee of the Board, not less than annually.

(b) Annual Bonus. Executive shall be eligible to receive a discretionary annual bonus based on Executive's achievement of performance objectives as mutually agreed between Executive and the CEO, such bonus to be targeted at 35% of Executive's Annual Base Salary (the "***Annual Bonus***"). Any Annual Bonus approved by the Board, the Compensation Committee of the Board and/or the CEO shall be paid at the same time annual bonuses are paid to other executives of the Company generally, subject to Executive's continuous employment through the date of approval.

(c) Benefits. Executive shall be entitled to participate in such employee and executive benefit plans and programs as the Company may from time to time offer to provide to its executives, subject to the terms and conditions of such plans. Notwithstanding the foregoing, nothing herein is intended, or shall be construed, to require the Company to institute or continue any, or any particular, plan or benefit.

(d) Business Expenses. The Company shall reimburse Executive for all reasonable, documented, out-of-pocket travel and other business expenses incurred by Executive in the performance of Executive's duties to the Company in accordance with the Company's applicable expense reimbursement policies and procedures as are in effect from time to time. Without limiting the foregoing, the Company will reimburse Executive's reasonable airfare expenses incurred when traveling between the Company's headquarters and Executive's primary residence.

(e) Vacation. Executive will be entitled to paid vacation in accordance with the Company's vacation policy.

4. Equity Awards. Executive shall be eligible for such stock options and equity awards as may be determined by the Company, in its sole discretion.

5. Termination.

(a) At-Will Employment. The Company and Executive acknowledge that Executive's employment is and shall continue to be at-will, as defined under applicable law. This means that it is not for any specified period of time and can be terminated by Executive or by the Company at any time, with or without advance notice, and for any or no particular reason or cause. It also means that Executive's job duties, title, and responsibility and reporting level, work schedule, compensation, and benefits, as well as the Company's personnel policies and procedures, may be changed with prospective effect, with or without notice, at any time in the sole discretion of the Company (subject to any ramification such changes may have under Section 6 of this Agreement). This "at-will" nature of Executive's employment shall remain unchanged during Executive's tenure as an employee and may not be changed, except in an express writing signed by Executive and a duly-authorized officer of the Company. If Executive's employment terminates for any lawful reason, Executive shall not be entitled to any payments, benefits, damages, award, or compensation other than as provided in this Agreement.

(b) Notice of Termination. During the Term, any termination of Executive's employment by the Company or by Executive (other than by reason of death) shall be communicated by written notice (a "***Notice of Termination***") from one Party hereto to the other Party hereto (i) indicating the specific termination provision in this Agreement relied upon, if any, (ii) setting forth in reasonable detail the facts and circumstances claimed to provide a basis for termination of Executive's employment under the provision so indicated, and (iii) specifying the Date of Termination (as defined below). The failure by the Company to set forth in the Notice of Termination all of the facts and circumstances which contribute to a showing of Cause (as defined below) shall not waive any right of the Company hereunder or preclude the Company from asserting such fact or circumstance in enforcing their rights hereunder.

(c) Date of Termination. For purposes of this Agreement, "***Date of Termination***" shall mean the date of the termination of Executive's employment with the Company specified in a Notice of Termination.

(d) Deemed Resignation. Upon termination of Executive's employment for any reason, Executive shall be deemed to have resigned from all offices and board memberships, if any, then held with the Company or any of its affiliates, and, at the Company's request, Executive shall execute such documents as are necessary or desirable to effectuate such resignations.

6. Consequences of Termination.

(a) Payments of Accrued Obligations upon all Terminations of Employment. Upon a termination of Executive's employment for any reason, Executive (or Executive's estate or legal representative, as applicable) shall be entitled to receive, within 30 days after Executive's Date of Termination (or such earlier date as may be required by applicable law): (i) any portion of Executive's Annual Base Salary earned through Executive's Date of Termination not theretofore paid, (ii) any expenses owed to Executive under Section 3, (iii) any accrued but unused paid time-off owed to Executive, (iv) any Annual Bonus approved by the Board, Compensation Committee of the Board and/or the CEO on or prior to the Date of Termination but unpaid as of the Date of Termination, and (v) any amount arising from Executive's participation in, or benefits under, any employee benefit plans, programs, or arrangements under Section 3, which amounts shall be payable in accordance with the terms and conditions of such employee benefit plans, programs, or arrangements. Except as otherwise set forth in Sections 6(b) and (c), the payments and benefits described in this Section 6(a) shall be the only payments and benefits payable in the event of Executive's termination of employment for any reason.

(b) Severance Payments upon Covered Termination Outside a Change in Control Period. If, during the Term, Executive experiences a Covered Termination outside a Change in Control Period (each as defined below), then in addition to the payments and benefits described in Section 6(a), the Company shall, subject to Executive's delivery to the Company of a waiver and release of claims agreement in a form approved by the Company (a "***Release***") that becomes effective and irrevocable in accordance with Section 11(d), provide Executive with the following:

(i) The Company shall pay to Executive an amount equal to the sum of (i) Executive's Annual Base Salary multiplied by 0.75 and (ii) Executive's target Annual Bonus. Such amount will be subject to applicable withholdings and payable in a single lump sum cash payment on the first regular payroll date following the date the Release becomes effective and irrevocable in accordance with Section 11(d).

(ii) During the period commencing on the Date of Termination and ending on the nine-month anniversary thereof or, if earlier, the date on which Executive becomes eligible for comparable replacement coverage under a subsequent employer's group health plan (in any case, the "***Non-CIC COBRA Period***"), subject to Executive's valid election to continue healthcare coverage under Section 4980B of the Internal Revenue Code of 1986, as amended (the "***Code***") and the regulations thereunder, the Company shall, in its sole discretion, either (A) continue to provide to Executive and Executive's dependents, at the Company's sole expense, or (B) reimburse Executive and Executive's dependents for coverage under its group health plan (if any) at the same levels in effect on the Date of Termination; *provided, however*, that if (1) any plan pursuant to which such

benefits are provided is not, or ceases prior to the expiration of the continuation coverage period to be, exempt from the application of Section 409A under Treasury Regulation Section 1.409A-1(a)(5), (2) the Company is otherwise unable to continue to cover Executive or Executive's dependents under its group health plans, or (3) the Company cannot provide the benefit without violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), then, in any such case, an amount equal to each remaining Company subsidy shall thereafter be paid to Executive in substantially equal monthly installments over the Non-CIC COBRA Period (or remaining portion thereof).

(c) Severance Payments upon Covered Termination During a Change in Control Period. If, during the Term, Executive experiences a Covered Termination during a Change in Control Period, then, in addition to the payments and benefits described in Section 6(a), the Company shall, subject to Executive's delivery to the Company of a Release that becomes effective and irrevocable in accordance with Section 11(d), provide Executive with the following:

(i) The Company shall pay to Executive an amount equal to the sum of (i) Executive's Annual Base Salary and (ii) Executive's target Annual Bonus. Such amount will be subject to applicable withholdings and payable in a single lump sum cash payment on the first regular payroll date following the date the Release becomes effective and irrevocable in accordance with Section 11(d).

(ii) During the period commencing on the Date of Termination and ending on the 12-month anniversary thereof or, if earlier, the date on which Executive becomes eligible for comparable replacement coverage under a subsequent employer's group health plan (in any case, the "***CIC COBRA Period***"), subject to Executive's valid election to continue healthcare coverage under Section 4980B of the Code and the regulations thereunder, the Company shall, in its sole discretion, either (A) continue to provide to Executive and Executive's dependents, at the Company's sole expense, or (B) reimburse Executive and Executive's dependents for coverage under its group health plan (if any) at the same levels in effect on the Date of Termination; *provided, however*, that if (1) any plan pursuant to which such benefits are provided is not, or ceases prior to the expiration of the continuation coverage period to be, exempt from the application of Section 409A under Treasury Regulation Section 1.409A-1(a)(5), (2) the Company is otherwise unable to continue to cover Executive or Executive's dependents under its group health plans, or (3) the Company cannot provide the benefit without violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), then, in any such case, an amount equal to each remaining Company subsidy shall thereafter be paid to Executive in substantially equal monthly installments over the CIC COBRA Period (or remaining portion thereof).

(iii) Cause any unvested equity awards, including any stock options, restricted stock awards and any such awards subject to performance-based vesting, held by Executive as of the Date of Termination, to become fully vested and, if applicable, exercisable, and cause all restrictions and rights of repurchase on such awards to lapse with respect to all of the shares of the Company's Common Stock subject thereto.

(d) No Other Severance. The provisions of this Section 6 shall supersede in their entirety any severance payment provisions in any severance plan, policy, program, or other arrangement maintained by the Company except as otherwise approved by the Board.

(e) No Requirement to Mitigate; Survival. Executive shall not be required to mitigate the amount of any payment provided for under this Agreement by seeking other employment or in any other manner. Notwithstanding anything to the contrary in this Agreement, the termination of Executive's employment shall not impair the rights or obligations of any Party.

(f) Definition of Cause. For purposes hereof, "***Cause***" shall mean any one of the following: (i) Executive's material violation of any applicable material law or regulation respecting the business of the Company; (ii) Executive's conviction of, or plea of *nolo contendere* to, a felony or other crime involving moral turpitude; (iii) any act of dishonesty, fraud, or misrepresentation in relation to Executive's duties to the Company which act is materially and demonstrably injurious to the Company; (iv) Executive's willful and repeated failure to perform in any material respect Executive's duties hereunder after 15 days' notice and an opportunity to cure such failure and a reasonable opportunity to present to the Board Executive's position regarding any dispute relating to the existence of such failure (other than on account of disability); (v) Executive's failure to attempt in good faith to implement a clear and reasonable directive from the CEO or to comply with any of the Company's policies and procedures which failure is either material or occurs after written notice from the CEO; (vi) any act of gross misconduct which is materially and demonstrably injurious to the Company; or (vii) Executive's breach of fiduciary duty owed to the Company.

(g) Definition of Change in Control. For purposes of this Agreement, "***Change in Control***" shall mean (i) the acquisition by any person or group of affiliated or associated persons of more than 50% of the outstanding capital stock of the Company or voting securities representing more than 50% of the total voting power of outstanding securities of the Company; (ii) the consummation of a sale of all or substantially all of the assets of the Company to a third party; (iii) the consummation of any merger involving the Company in which, immediately after giving effect to such merger, less than a majority of the total voting power of outstanding stock of the surviving or resulting entity is then "beneficially owned" (within the meaning of Rule 13d-3 under the Securities Exchange Act of 1934, as amended) in the aggregate by the stockholders of the Company, as applicable, immediately prior to such merger. For the avoidance of doubt and notwithstanding anything herein to the contrary, in no event shall a transaction constitute a "Change in Control" if: (w) its sole purpose is to change the state of the Company's incorporation; (x) its sole purpose is to create a holding company that will be owned in substantially the same proportions by the persons who held the Company's securities immediately before such transaction; (y) it is effected primarily for the purpose of financing the Company with cash (as determined by the Board without regard to whether such transaction is effectuated by a merger, equity financing, or otherwise); or (z) it constitutes, or includes sales of shares in connection with, the initial public offering of the Company's capital stock. Notwithstanding the foregoing, a "Change in Control" must also constitute a "change in control event," as defined in Treasury Regulation §1.409A-3(i)(5).

(h) Definition of Change in Control Period. For purposes hereof, "***Change in Control Period***" shall mean the period of time commencing three months prior to a Change in Control and ending 12 months after such Change in Control.

(i) Definition of Covered Termination. For purposes hereof, "***Covered Termination***" shall mean the termination of Executive's employment by the Company without Cause or by Executive for Good Reason, and shall not include a termination due to Executive's death or disability.

(j) Definition of Good Reason. For purposes hereof, "***Good Reason***" shall mean any one of the following: (i) the material reduction of Executive's base salary or target annual performance bonus, (ii) the assignment to Executive of any duties materially and negatively inconsistent in any respect of Executive's position (including status, offices, titles and reporting requirements), authority, duties or responsibilities, or any other action by the Company which results in a material diminution in such position, authority, duties or responsibilities (including without limitation a requirement to report to any person or entity other than the CEO); or (iii) the Company's material breach of this Agreement, *provided*, that, in each case, Executive will not be deemed to have Good Reason unless (1) Executive first provides the Company with written notice of the condition giving rise to Good Reason within 30 days of its initial occurrence, (2) the Company or the successor company fails to cure such condition within 30 days after receiving such written notice (the "***Cure Period***"), and (3) Executive's resignation based on such Good Reason is effective within 30 days after the expiration of the Cure Period.

7. Assignment and Successors. The Company shall assign its rights and obligations under this Agreement to any successor to all or substantially all of the business or the assets of the Company (by merger or otherwise). This Agreement shall be binding upon and inure to the benefit of the Company, Executive, and their respective successors, assigns, personnel, and legal representatives, executors, administrators, heirs, distributees, devisees, and legatees, as applicable. None of Executive's rights or obligations may be assigned or transferred by Executive, other than Executive's rights to payments hereunder, which may be transferred only by will, operation of law, or as otherwise provided herein.

8. Miscellaneous Provisions.

(a) Confidentiality Agreement. Executive hereby affirms Executive's obligations under that certain Proprietary Information and Inventions Assignment Agreement by and between Executive and the Company dated as of March 7, 2016 (the "***Confidentiality Agreement***"). The Confidentiality Agreement shall survive the termination of this Agreement and Executive's employment with the Company for the applicable period(s) set forth therein. Notwithstanding the foregoing, in the event of any conflict between the terms of the Confidentiality Agreement and the terms of this Agreement, the terms of this Agreement shall prevail.

(b) Non-Solicitation of Employees. For a period of one year following Executive's Date of Termination, Executive shall not, either directly or indirectly (i) solicit for employment by any individual, corporation, firm, or other business, any employees, consultants, independent contractors, or other service providers of the Company or any of its affiliates, or (ii)

solicit any employee or consultant of the Company or any of its affiliates to leave the employment or consulting of or cease providing services to the Company or any of its affiliates; *provided*, *however*, that the foregoing clauses (i) and (ii) shall not apply to a general advertisement or solicitation (or any hiring pursuant to such advertisement or solicitation) that is not specifically targeted to such employees or consultants.

(c) Governing Law. This Agreement shall be governed, construed, interpreted, and enforced in accordance with its express terms, and otherwise in accordance with the substantive laws of the State of California, without giving effect to any principles of conflicts of law, whether of the State of California or any other jurisdiction, and where applicable, the laws of the United States, that would result in the application of the laws of any other jurisdiction.

(d) Validity. The invalidity or unenforceability of any provision or provisions of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement, which shall remain in full force and effect.

(e) Counterparts. This Agreement may be executed in several counterparts, each of which shall be deemed to be an original, but all of which together will constitute one and the same Agreement. Signatures delivered by facsimile shall be deemed effective for all purposes.

(f) Entire Agreement. The terms of this Agreement, together with the Confidentiality Agreement, are intended by the Parties to be the final expression of their agreement with respect to the employment of Executive by the Company and supersede all prior understandings and agreements, whether written or oral, regarding Executive's service to the Company, including without limitation, the Offer Letter. The Parties further intend that this Agreement, together with the Confidentiality Agreement, shall constitute the complete and exclusive statement of their terms and that no extrinsic evidence whatsoever may be introduced in any judicial, administrative, or other legal proceeding to vary the terms of this Agreement or the Confidentiality Agreement. Notwithstanding the foregoing, in the event of any conflict between the terms of the Confidentiality Agreement and the terms of this Agreement, the terms of this Agreement shall prevail.

(g) Amendments; Waivers. This Agreement may not be modified, amended, or terminated except by an instrument in writing signed by Executive and a duly authorized representative of the Company. By an instrument in writing similarly executed, Executive or a duly authorized officer of the Company, as applicable, may waive compliance by the other Party with any specifically identified provision of this Agreement that such other Party was or is obligated to comply with or perform; *provided*, *however*, that such waiver shall not operate as a waiver of, or estoppel with respect to, any other or subsequent failure. No failure to exercise and no delay in exercising any right, remedy, or power hereunder shall preclude any other or further exercise of any other right, remedy, or power provided herein or by law or in equity.

(h) Dispute Resolution. To ensure the timely and economical resolution of disputes that arise in connection with this Agreement, Executive and the Company agree that any and all controversies, claims and disputes arising out of or relating to this Agreement, including without limitation any alleged violation of its terms, shall be resolved be resolved solely and exclusively by final and binding arbitration held in Alameda County, California through JAMS in

conformity with California law and the then-existing JAMS employment arbitration rules, which can be found at https://www.jamsadr.com/rules-employment-arbitration/. The arbitrator shall: (a) provide adequate discovery for the resolution of the dispute; and (b) issue a written arbitration decision, to include the arbitrator's essential findings and conclusions and a statement of the award. The arbitrator shall award the prevailing Party attorneys' fees and expert fees, if any. Notwithstanding the foregoing, it is acknowledged that it will be impossible to measure in money the damages that would be suffered if the Parties fail to comply with any of the obligations imposed on them under Section 8(a), and that in the event of any such failure, an aggrieved person will be irreparably damaged and will not have an adequate remedy at law. Any such person shall, therefore, be entitled to injunctive relief, including specific performance, to enforce such obligations, and if any action shall be brought in equity to enforce any of the provisions of Section 8(a), none of the Parties shall raise the defense that there is an adequate remedy at law. Executive and the Company understand that by agreement to arbitrate any claim pursuant to this Section 8(h), they will not have the right to have any claim decided by a jury or a court, but shall instead have any claim decided through arbitration. Executive and the Company waive any constitutional or other right to bring claims covered by this Agreement other than in their individual capacities. Except as may be prohibited by applicable law, the foregoing waiver includes the ability to assert claims as a plaintiff or class member in any purported class or representative proceeding.

(i) Enforcement. If any provision of this Agreement is held to be illegal, invalid, or unenforceable under present or future laws, such provision shall be fully severable; this Agreement shall be construed and enforced as if such illegal, invalid, or unenforceable provision had never comprised a portion of this Agreement; and the remaining provisions of this Agreement shall remain in full force and effect and shall not be affected by the illegal, invalid, or unenforceable provision or by its severance from this Agreement. Furthermore, in lieu of such illegal, invalid, or unenforceable provision there shall be added automatically as part of this Agreement a provision as similar in terms to such illegal, invalid, or unenforceable provision as may be possible and be legal, valid, and enforceable.

(j) Withholding. The Company shall be entitled to withhold from any amounts payable under this Agreement any federal, state, local, or foreign withholding or other taxes or charges which the Company is required to withhold. The Company shall be entitled to rely on an opinion of counsel if any questions as to the amount or requirement of withholding shall arise.

(k) Whistleblower Protections and Trade Secrets. Notwithstanding anything to the contrary contained herein, nothing in this Agreement prohibits Executive from reporting possible violations of federal law or regulation to any United States governmental agency or entity in accordance with the provisions of and rules promulgated under Section 21F of the Securities Exchange Act of 1934 or Section 806 of the Sarbanes-Oxley Act of 2002, or any other whistleblower protection provisions of state or federal law or regulation (including the right to receive an award for information provided to any such government agencies). Furthermore, in accordance with 18 U.S.C. § 1833, notwithstanding anything to the contrary in this Agreement: (i) Executive shall not be in breach of this Agreement, and shall not be held criminally or civilly liable under any federal or state trade secret law (x) for the disclosure of a trade secret that is made in confidence to a federal, state, or local government official or to an attorney solely for the purpose of reporting or investigating a suspected violation of law, or (y) for the disclosure of a trade secret that is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing

is made under seal; and (ii) if Executive files a lawsuit for retaliation by the Company for reporting a suspected violation of law, Executive may disclose the trade secret to Executive's attorney, and may use the trade secret information in the court proceeding, if Executive files any document containing the trade secret under seal, and does not disclose the trade secret, except pursuant to court order.

9. Prior Employment. Executive represents and warrants that Executive's acceptance of employment with the Company has not breached, and the performance of Executive's duties hereunder will not breach, any duty owed by Executive to any prior employer or other person. Executive further represents and warrants to the Company that (a) the performance of Executive's obligations hereunder will not violate any agreement between Executive and any other person, firm, organization, or other entity; (b) Executive is not bound by the terms of any agreement with any previous employer or other party to refrain from competing, directly or indirectly, with the business of such previous employer or other party that would be violated by Executive entering into this Agreement and/or providing services to the Company pursuant to the terms of this Agreement; and (c) Executive's performance of Executive's duties under this Agreement will not require Executive to, and Executive shall not, rely on in the performance of Executive's duties or disclose to the Company or any other person or entity or induce the Company in any way to use or rely on any trade secret or other confidential or proprietary information or material belonging to any previous employer of Executive.

10. Golden Parachute Excise Tax.

(a) Best Pay. Any provision of this Agreement to the contrary notwithstanding, if any payment or benefit Executive would receive from the Company pursuant to this Agreement or otherwise ("***Payment***") would (i) constitute a "parachute payment" within the meaning of Section 280G of the Code and (ii) but for this sentence, be subject to the excise tax imposed by Section 4999 of the Code (the "***Excise Tax***"), then such Payment will be equal to the Reduced Amount (as defined below). The "***Reduced Amount***" will be either (A) the largest portion of the Payment that would result in no portion of the Payment (after reduction) being subject to the Excise Tax or (B) the entire Payment, whichever amount after taking into account all applicable federal, state, and local employment taxes, income taxes, and the Excise Tax (all computed at the highest applicable marginal rate, net of the maximum reduction in federal income taxes which could be obtained from a deduction of such state and local taxes), results in Executive' s receipt, on an after-tax basis, of the greater economic benefit notwithstanding that all or some portion of the Payment may be subject to the Excise Tax. If a reduction in a Payment is required pursuant to the preceding sentence and the Reduced Amount is determined pursuant to clause (A) of the preceding sentence, the reduction shall occur in the manner (the "***Reduction Method***") that results in the greatest economic benefit for Executive. If more than one method of reduction will result in the same economic benefit, the items so reduced will be reduced pro rata (the "***Pro Rata Reduction Method***"). Notwithstanding the foregoing, if the Reduction Method or the Pro Rata Reduction Method would result in any portion of the Payment being subject to taxes pursuant to Section 409A (as defined below) that would not otherwise be subject to taxes pursuant to Section 409A, then the Reduction Method and/or the Pro Rata Reduction Method, as the case may be, shall be modified so as to avoid the imposition of taxes pursuant to Section 409A as follows: (1) as a first priority, the modification shall preserve to the greatest extent possible, the greatest economic benefit for Executive as determined on an after-tax basis; (2) as a second priority, Payments that are

contingent on future events (*e.g*., being terminated without cause), shall be reduced (or eliminated) before Payments that are not contingent on future events; and (3) as a third priority, Payments that are "deferred compensation" within the meaning of Section 409A shall be reduced (or eliminated) before Payments that are not deferred compensation within the meaning of Section 409A.

(b) Accounting Firm. The accounting firm engaged by the Company for general tax purposes as of the day prior to the Change in Control will perform the calculations set forth in Section 10(a). If the firm so engaged by the Company is serving as the accountant or auditor for the acquiring company, the Company will appoint a nationally recognized accounting firm to make the determinations required hereunder. The Company will bear all expenses with respect to the determinations by such firm required to be made hereunder. The accounting firm engaged to make the determinations hereunder will provide its calculations, together with detailed supporting documentation, to the Company within 30 days before the consummation of a Change in Control (if requested at that time by the Company) or such other time as requested by the Company. If the accounting firm determines that no Excise Tax is payable with respect to a Payment, either before or after the application of the Reduced Amount, it will furnish the Company with documentation reasonably acceptable to the Company that no Excise Tax will be imposed with respect to such Payment. Any good faith determinations of the accounting firm made hereunder will be final, binding and conclusive upon the Company and Executive.

11. Section 409A.

(a) General. The intent of the Parties is that the payments and benefits under this Agreement comply with or be exempt from Section 409A of the Code and the Department of Treasury regulations and other interpretive guidance issued thereunder, including without limitation any such regulations or other guidance that may be issued after the Effective Date, ("***Section 409A***") and, accordingly, to the maximum extent permitted, this Agreement shall be interpreted to be in compliance therewith. If Executive notifies the Company that Executive has received advice of tax counsel of a national reputation with expertise in Section 409A that any provision of this Agreement would cause Executive to incur any additional tax or interest under Section 409A (with specificity as to the reason therefor) or the Company independently makes such determination, the Company and Executive shall take commercially reasonable efforts to reform such provision to try to comply with or be exempt from Section 409A through good faith modifications to the minimum extent reasonably appropriate to conform with Section 409A, *provided* that any such modifications shall not increase the cost or liability to the Company. To the extent that any provision hereof is modified in order to comply with or be exempt from Section 409A, such modification shall be made in good faith and shall, to the maximum extent reasonably possible, maintain the original intent and economic benefit to Executive and the Company of the applicable provision without violating the provisions of Section 409A.

(b) Separation from Service. Notwithstanding any provision to the contrary in this Agreement: (i) no amount that constitutes "deferred compensation" under Section 409A shall be payable pursuant to Section 6 unless the termination of Executive's employment constitutes a "separation from service" within the meaning of Section 1.409A-1(h) of the Department of Treasury Regulations ("***Separation from Service***"); (ii) for purposes of Section 409A, Executive's right to receive installment payments shall be treated as a right to receive a series of separate and distinct payments; and (iii) to the extent that any reimbursement of expenses or in-kind benefits

constitutes "deferred compensation" under Section 409A, such reimbursement or benefit shall be provided no later than December 31st of the year following the year in which the expense was incurred. The amount of expenses reimbursed in one year shall not affect the amount eligible for reimbursement in any subsequent year. The amount of any in-kind benefits provided in one year shall not affect the amount of in-kind benefits provided in any other year.

(c) Specified Employee. Notwithstanding anything in this Agreement to the contrary, if Executive is deemed by the Company at the time of Executive's Separation from Service to be a "specified employee" for purposes of Section 409A, to the extent delayed commencement of any portion of the benefits to which Executive is entitled under this Agreement is required in order to avoid a prohibited distribution under Section 409A, such portion of Executive's benefits shall not be provided to Executive prior to the earlier of (i) the expiration of the six-month period measured from the date of Executive's Separation from Service with the Company or (ii) the date of Executive's death. Upon the first business day following the expiration of the applicable Section 409A period, all payments deferred pursuant to the preceding sentence shall be paid in a lump sum to Executive (or Executive's estate or beneficiaries), and any remaining payments due to Executive under this Agreement shall be paid as otherwise provided herein.

(d) Release. Notwithstanding anything to the contrary in this Agreement, to the extent that any payments due under this Agreement as a result of Executive's termination of employment are subject to Executive's execution and delivery of a Release, (i) the Company shall deliver the Release to Executive within ten business days following Executive's Date of Termination, and the Company's failure to deliver a Release prior to the expiration of such ten business day period shall constitute a waiver of any requirement to execute a Release, (ii) if Executive fails to execute the Release on or prior to the Release Expiration Date (as defined below) or timely revokes Executive's acceptance of the Release thereafter, Executive shall not be entitled to any payments or benefits otherwise conditioned on the Release, and (iii) in any case where Executive's Date of Termination and the Release Expiration Date fall in two separate taxable years, any payments required to be made to Executive that are conditioned on the Release and are treated as nonqualified deferred compensation for purposes of Section 409A shall be made in the later taxable year. For purposes of this Section 11(d), "***Release Expiration Date***" shall mean the date that is 21 days following the date upon which the Company timely delivers the Release to Executive, or, in the event that Executive's termination of employment is "in connection with an exit incentive or other employment termination program" (as such phrase is defined in the Age Discrimination in Employment Act of 1967), the date that is 45 days following such delivery date. To the extent that any payments of nonqualified deferred compensation (within the meaning of Section 409A) due under this Agreement as a result of Executive's termination of employment are delayed pursuant to this Section 11(d), such amounts shall be paid in a lump sum on the first payroll date following the date that Executive executes and does not revoke the Release (and the applicable revocation period has expired) or, in the case of any payments subject to Section 11(d)(iii), on the first payroll period to occur in the subsequent taxable year, if later.

12. Employee Acknowledgement. Executive acknowledges that Executive has read and understands this Agreement, is fully aware of its legal effect, has not acted in reliance upon any representations or promises made by the Company other than those contained in writing herein, and has entered into this Agreement freely based on Executive's own judgment.

[*Signature Page Follows*]

The Parties have executed this Agreement as of the Agreement Date.

GRITSTONE ONCOLOGY, INC.

By: /s/ Andrew Allen
Name: Andrew Allen
Title: President and Chief Executive Officer

EXECUTIVE

By: /s/ Karin Jooss
Name: Karin Jooss

Address:

GRITSTONE ONCOLOGY, INC.

EMPLOYMENT AGREEMENT

This Employment Agreement (the "***Agreement***"), entered into as of September 16, 2018 (the "***Agreement Date***"), is between Gritstone Oncology, Inc., a Delaware corporation (the "***Company***") and Raphaël Rousseau ("***Executive***" and, together with the Company, the "***Parties***"). This Agreement will become effective as a binding contract as of the Agreement Date, but the operative provisions of this Agreement will only become effective as of immediately prior to the time the Company's registration statement relating to the initial public offering of the Company's common stock becomes effective (the "***Effective Date***"). This Agreement supersedes in its entirety that certain offer letter between Executive and the Company dated as of November 15, 2016 ("***Offer Letter***").

WHEREAS, the Company desires to assure itself of the continued services of Executive by engaging Executive to perform services as an employee of the Company under the terms hereof;

WHEREAS, Executive desires to provide continued services to the Company on the terms herein provided; and

WHEREAS, the Parties desire to execute this Agreement to supersede the Offer Letter in its entirety and reflect certain changes to Executive's employment with the Company effective as of the Effective Date.

NOW, THEREFORE, in consideration of the foregoing, and for other good and valuable consideration, including the respective covenants and agreements set forth below, the receipt and sufficiency of which are hereby acknowledged, the Parties hereto agree as follows:

1. Employment.

(a) General. The Company shall employ Executive upon the terms and conditions provided herein effective as of the Effective Date.

(b) Position and Duties. Effective on the Effective Date, Executive: (i) shall continue to serve as the Company's Executive Vice President and Chief Medical Officer, with responsibilities, duties, and authority usual and customary for such position, subject to direction by the Chief Executive Officer of the Company (the "***CEO***"); (ii) shall continue to report directly to the CEO; and (iii) agrees promptly and faithfully to comply with all present and future policies, requirements, rules and regulations, and reasonable directions and requests, of the Company in connection with the Company's business. At the Company's request, Executive shall serve the Company and/or its subsidiaries and affiliates in such other capacities in addition to the foregoing as the Company shall designate, provided that such additional capacities are consistent with Executive's position as the Company's Executive Vice President and Chief Medical Officer. In the event that Executive serves in any one or more of such additional capacities, Executive's compensation shall not automatically be increased on account of such additional service.

(c) Performance of Executive's Duties. During Executive's employment with the Company, and except for periods of illness, vacation, disability, or reasonable leaves of absence or as discussed in Section 1(e), Executive shall devote Executive's full time and attention to the business and affairs of the Company pursuant to the general direction of the CEO. The rights of Executive under this Agreement shall not be affected by any change in the title, duties, or capacity of Executive during Executive's employment with the Company.

(d) Principal Office. Executive will work principally at the Company's facility located in Emeryville, California.

(e) Exclusivity. Except with the prior written approval of the CEO (which the CEO may grant or withhold in his or her sole and absolute discretion), Executive shall devote substantially all of Executive's working time, attention, and energies to the business of the Company, except during any paid vacation or other excused absence periods. Nothing in this section prevents Executive from engaging in additional activities in connection with personal investments and community affairs. Executive may also serve as a member of the board of directors or board of advisors of another organization provided (i) such organization is not a competitor of the Company; (ii) Executive receives prior written approval from the Company's CEO; and (iii) such activities do not individually or in the aggregate interfere with the performance of Executive's duties under this Agreement, violate the Company's standards of conduct then in effect, or raise a conflict under the Company's conflict of interest policies.

2. Term. The period of Executive's employment under this Agreement shall commence on the Effective Date and shall continue until Executive's employment with the Company is terminated pursuant to Section 5. The phrase "***Term***" as used in this Agreement shall refer to the entire period of employment of Executive by the Company.

3. Compensation and Related Matters.

(a) Annual Base Salary. During the Term, Executive shall receive a base salary at the rate of $412,000 per year (as may be increased from time to time, the "***Annual Base Salary***"), subject to withholdings and deductions, which shall be paid to Executive in accordance with the customary payroll practices and procedures of the Company. Such Annual Base Salary shall be reviewed by the CEO, and, as applicable, the Board of Directors of the Company (the "***Board***") and/or the Compensation Committee of the Board, not less than annually.

(b) Annual Bonus. Executive shall be eligible to receive a discretionary annual bonus based on Executive's achievement of performance objectives as mutually agreed between Executive and the CEO, such bonus to be targeted at 35% of Executive's Annual Base Salary (the "***Annual Bonus***"). Any Annual Bonus approved by the Board, the Compensation Committee of the Board and/or the CEO shall be paid at the same time annual bonuses are paid to other executives of the Company generally, subject to Executive's continuous employment through the date of approval.

(c) Benefits. Executive shall be entitled to participate in such employee and executive benefit plans and programs as the Company may from time to time offer to provide to its executives, subject to the terms and conditions of such plans. Notwithstanding the foregoing, nothing herein is intended, or shall be construed, to require the Company to institute or continue any, or any particular, plan or benefit.

(d) Business Expenses. The Company shall reimburse Executive for all reasonable, documented, out-of-pocket travel and other business expenses incurred by Executive in the performance of Executive's duties to the Company in accordance with the Company's applicable expense reimbursement policies and procedures as are in effect from time to time.

(e) Vacation. Executive will be entitled to paid vacation in accordance with the Company's vacation policy.

4. Equity Awards. Executive shall be eligible for such stock options and equity awards as may be determined by the Company, in its sole discretion.

5. Termination.

(a) At-Will Employment. The Company and Executive acknowledge that Executive's employment is and shall continue to be at-will, as defined under applicable law. This means that it is not for any specified period of time and can be terminated by Executive or by the Company at any time, with or without advance notice, and for any or no particular reason or cause. It also means that Executive's job duties, title, and responsibility and reporting level, work schedule, compensation, and benefits, as well as the Company's personnel policies and procedures, may be changed with prospective effect, with or without notice, at any time in the sole discretion of the Company (subject to any ramification such changes may have under Section 6 of this Agreement). This "at-will" nature of Executive's employment shall remain unchanged during Executive's tenure as an employee and may not be changed, except in an express writing signed by Executive and a duly-authorized officer of the Company. If Executive's employment terminates for any lawful reason, Executive shall not be entitled to any payments, benefits, damages, award, or compensation other than as provided in this Agreement.

(b) Notice of Termination. During the Term, any termination of Executive's employment by the Company or by Executive (other than by reason of death) shall be communicated by written notice (a "***Notice of Termination***") from one Party hereto to the other Party hereto (i) indicating the specific termination provision in this Agreement relied upon, if any, (ii) setting forth in reasonable detail the facts and circumstances claimed to provide a basis for termination of Executive's employment under the provision so indicated, and (iii) specifying the Date of Termination (as defined below). The failure by the Company to set forth in the Notice of Termination all of the facts and circumstances which contribute to a showing of Cause (as defined below) shall not waive any right of the Company hereunder or preclude the Company from asserting such fact or circumstance in enforcing their rights hereunder.

(c) Date of Termination. For purposes of this Agreement, "***Date of Termination***" shall mean the date of the termination of Executive's employment with the Company specified in a Notice of Termination.

(d) Deemed Resignation. Upon termination of Executive's employment for any reason, Executive shall be deemed to have resigned from all offices and board memberships, if any, then held with the Company or any of its affiliates, and, at the Company's request, Executive shall execute such documents as are necessary or desirable to effectuate such resignations.

6. Consequences of Termination.

(a) Payments of Accrued Obligations upon all Terminations of Employment. Upon a termination of Executive's employment for any reason, Executive (or Executive's estate or legal representative, as applicable) shall be entitled to receive, within 30 days after Executive's Date of Termination (or such earlier date as may be required by applicable law): (i) any portion of Executive's Annual Base Salary earned through Executive's Date of Termination not theretofore paid, (ii) any expenses owed to Executive under Section 3, (iii) any accrued but unused paid time-off owed to Executive, (iv) any Annual Bonus approved by the Board, Compensation Committee of the Board and/or the CEO on or prior to the Date of Termination but unpaid as of the Date of Termination, and (v) any amount arising from Executive's participation in, or benefits under, any employee benefit plans, programs, or arrangements under Section 3, which amounts shall be payable in accordance with the terms and conditions of such employee benefit plans, programs, or arrangements. Except as otherwise set forth in Sections 6(b) and (c), the payments and benefits described in this Section 6(a) shall be the only payments and benefits payable in the event of Executive's termination of employment for any reason.

(b) Severance Payments upon Covered Termination Outside a Change in Control Period. If, during the Term, Executive experiences a Covered Termination outside a Change in Control Period (each as defined below), then in addition to the payments and benefits described in Section 6(a), the Company shall, subject to Executive's delivery to the Company of a waiver and release of claims agreement in a form approved by the Company (a "***Release***") that becomes effective and irrevocable in accordance with Section 11(d), provide Executive with the following:

(i) The Company shall pay to Executive an amount equal to the sum of (i) Executive's Annual Base Salary multiplied by 0.75 and (ii) Executive's target Annual Bonus. Such amount will be subject to applicable withholdings and payable in a single lump sum cash payment on the first regular payroll date following the date the Release becomes effective and irrevocable in accordance with Section 11(d).

(ii) During the period commencing on the Date of Termination and ending on the nine-month anniversary thereof or, if earlier, the date on which Executive becomes eligible for comparable replacement coverage under a subsequent employer's group health plan (in any case, the "***Non-CIC COBRA Period***"), subject to Executive's valid election to continue healthcare coverage under Section 4980B of the Internal Revenue Code of 1986, as amended (the "***Code***") and the regulations thereunder, the Company shall, in its sole discretion, either (A) continue to provide to Executive and Executive's dependents, at the Company's sole expense, or (B) reimburse Executive and Executive's dependents for coverage under its group health plan (if any) at the same levels in effect on the Date of Termination; *provided, however*, that if (1) any plan pursuant to which such benefits are provided is not, or ceases prior to the expiration of the continuation coverage period to be, exempt from the application of Section 409A under Treasury Regulation Section 1.409A-1(a)(5), (2) the Company is otherwise unable to continue to cover Executive or Executive's dependents under its group health plans, or (3) the Company cannot provide the benefit without violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), then, in any such case, an amount equal to each remaining Company subsidy shall thereafter be paid to Executive in substantially equal monthly installments over the Non-CIC COBRA Period (or remaining portion thereof).

(c) Severance Payments upon Covered Termination During a Change in Control Period. If, during the Term, Executive experiences a Covered Termination during a Change in Control Period, then, in addition to the payments and benefits described in Section 6(a), the Company shall, subject to Executive's delivery to the Company of a Release that becomes effective and irrevocable in accordance with Section 11(d), provide Executive with the following:

(i) The Company shall pay to Executive an amount equal to the sum of (i) Executive's Annual Base Salary and (ii) Executive's target Annual Bonus. Such amount will be subject to applicable withholdings and payable in a single lump sum cash payment on the first regular payroll date following the date the Release becomes effective and irrevocable in accordance with Section 11(d).

(ii) During the period commencing on the Date of Termination and ending on the 12-month anniversary thereof or, if earlier, the date on which Executive becomes eligible for comparable replacement coverage under a subsequent employer's group health plan (in any case, the "***CIC COBRA Period***"), subject to Executive's valid election to continue healthcare coverage under Section 4980B of the Code and the regulations thereunder, the Company shall, in its sole discretion, either (A) continue to provide to Executive and Executive's dependents, at the Company's sole expense, or (B) reimburse Executive and Executive's dependents for coverage under its group health plan (if any) at the same levels in effect on the Date of Termination; *provided, however*, that if (1) any plan pursuant to which such benefits are provided is not, or ceases prior to the expiration of the continuation coverage period to be, exempt from the application of Section 409A under Treasury Regulation Section 1.409A-1(a)(5), (2) the Company is otherwise unable to continue to cover Executive or Executive's dependents under its group health plans, or (3) the Company cannot provide the benefit without violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), then, in any such case, an amount equal to each remaining Company subsidy shall thereafter be paid to Executive in substantially equal monthly installments over the CIC COBRA Period (or remaining portion thereof).

(iii) Cause any unvested equity awards, including any stock options, restricted stock awards and any such awards subject to performance-based vesting, held by Executive as of the Date of Termination, to become fully vested and, if applicable, exercisable, and cause all restrictions and rights of repurchase on such awards to lapse with respect to all of the shares of the Company's Common Stock subject thereto.

(d) No Other Severance. The provisions of this Section 6 shall supersede in their entirety any severance payment provisions in any severance plan, policy, program, or other arrangement maintained by the Company except as otherwise approved by the Board.

(e) No Requirement to Mitigate; Survival. Executive shall not be required to mitigate the amount of any payment provided for under this Agreement by seeking other employment or in any other manner. Notwithstanding anything to the contrary in this Agreement, the termination of Executive's employment shall not impair the rights or obligations of any Party.

(f) Definition of Cause. For purposes hereof, "***Cause***" shall mean any one of the following: (i) Executive's material violation of any applicable material law or regulation respecting the business of the Company; (ii) Executive's conviction of, or plea of *nolo contendere* to, a felony or other crime involving moral turpitude; (iii) any act of dishonesty, fraud, or misrepresentation in relation to Executive's duties to the Company which act is materially and demonstrably injurious to the Company; (iv) Executive's willful and repeated failure to perform in any material respect Executive's duties hereunder after 15 days' notice and an opportunity to cure such failure and a reasonable opportunity to present to the Board Executive's position regarding any dispute relating to the existence of such failure (other than on account of disability); (v) Executive's failure to attempt in good faith to implement a clear and reasonable directive from the CEO or to comply with any of the Company's policies and procedures which failure is either material or occurs after written notice from the CEO; (vi) any act of gross misconduct which is materially and demonstrably injurious to the Company; or (vii) Executive's breach of fiduciary duty owed to the Company.

(g) Definition of Change in Control. For purposes of this Agreement, "***Change in Control***" shall mean (i) the acquisition by any person or group of affiliated or associated persons of more than 50% of the outstanding capital stock of the Company or voting securities representing more than 50% of the total voting power of outstanding securities of the Company; (ii) the consummation of a sale of all or substantially all of the assets of the Company to a third party; (iii) the consummation of any merger involving the Company in which, immediately after giving effect to such merger, less than a majority of the total voting power of outstanding stock of the surviving or resulting entity is then "beneficially owned" (within the meaning of Rule 13d-3 under the Securities Exchange Act of 1934, as amended) in the aggregate by the stockholders of the Company, as applicable, immediately prior to such merger. For the avoidance of doubt and notwithstanding anything herein to the contrary, in no event shall a transaction constitute a "Change in Control" if: (w) its sole purpose is to change the state of the Company's incorporation; (x) its sole purpose is to create a holding company that will be owned in substantially the same proportions by the persons who held the Company's securities immediately before such transaction; (y) it is effected primarily for the purpose of financing the Company with cash (as determined by the Board without regard to whether such transaction is effectuated by a merger, equity financing, or otherwise); or (z) it constitutes, or includes sales of shares in connection with, the initial public offering of the Company's capital stock. Notwithstanding the foregoing, a "Change in Control" must also constitute a "change in control event," as defined in Treasury Regulation §1.409A-3(i)(5).

(h) Definition of Change in Control Period. For purposes hereof, "***Change in Control Period***" shall mean the period of time commencing three months prior to a Change in Control and ending 12 months after such Change in Control.

(i) Definition of Covered Termination. For purposes hereof, "***Covered Termination***" shall mean the termination of Executive's employment by the Company without Cause or by Executive for Good Reason, and shall not include a termination due to Executive's death or disability.

(j) Definition of Good Reason. For purposes hereof, "***Good Reason***" shall mean any one of the following: (i) the material reduction of Executive's base salary or target annual performance bonus, (ii) the assignment to Executive of any duties materially and negatively inconsistent in any respect of Executive's position (including status, offices, titles and reporting requirements), authority, duties or responsibilities, or any other action by the Company which results in a material diminution in such position, authority, duties or responsibilities (including without limitation a requirement to report to any person or entity other than the CEO); or (iii) the Company's material breach of this Agreement, *provided*, that, in each case, Executive will not be deemed to have Good Reason unless (1) Executive first provides the Company with written notice of the condition giving rise to Good Reason within 30 days of its initial occurrence, (2) the Company or the successor company fails to cure such condition within 30 days after receiving such written notice (the "***Cure Period***"), and (3) Executive's resignation based on such Good Reason is effective within 30 days after the expiration of the Cure Period.

7. Assignment and Successors. The Company shall assign its rights and obligations under this Agreement to any successor to all or substantially all of the business or the assets of the Company (by merger or otherwise). This Agreement shall be binding upon and inure to the benefit of the Company, Executive, and their respective successors, assigns, personnel, and legal representatives, executors, administrators, heirs, distributees, devisees, and legatees, as applicable. None of Executive's rights or obligations may be assigned or transferred by Executive, other than Executive's rights to payments hereunder, which may be transferred only by will, operation of law, or as otherwise provided herein.

8. Miscellaneous Provisions.

(a) Confidentiality Agreement. Executive hereby affirms Executive's obligations under that certain Proprietary Information and Inventions Assignment Agreement by and between Executive and the Company dated as of August 15, 2016 (the "***Confidentiality Agreement***"). The Confidentiality Agreement shall survive the termination of this Agreement and Executive's employment with the Company for the applicable period(s) set forth therein. Notwithstanding the foregoing, in the event of any conflict between the terms of the Confidentiality Agreement and the terms of this Agreement, the terms of this Agreement shall prevail.

(b) Non-Solicitation of Employees. For a period of one year following Executive's Date of Termination, Executive shall not, either directly or indirectly (i) solicit for employment by any individual, corporation, firm, or other business, any employees, consultants, independent contractors, or other service providers of the Company or any of its affiliates, or (ii) solicit any employee or consultant of the Company or any of its affiliates to leave the employment or consulting of or cease providing services to the Company or any of its affiliates; *provided*, *however*, that the foregoing clauses (i) and (ii) shall not apply to a general advertisement or solicitation (or any hiring pursuant to such advertisement or solicitation) that is not specifically targeted to such employees or consultants.

(c) Governing Law. This Agreement shall be governed, construed, interpreted, and enforced in accordance with its express terms, and otherwise in accordance with the substantive laws of the State of California, without giving effect to any principles of conflicts of law, whether of the State of California or any other jurisdiction, and where applicable, the laws of the United States, that would result in the application of the laws of any other jurisdiction.

(d) Validity. The invalidity or unenforceability of any provision or provisions of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement, which shall remain in full force and effect.

(e) Counterparts. This Agreement may be executed in several counterparts, each of which shall be deemed to be an original, but all of which together will constitute one and the same Agreement. Signatures delivered by facsimile shall be deemed effective for all purposes.

(f) Entire Agreement. The terms of this Agreement, together with the Confidentiality Agreement, are intended by the Parties to be the final expression of their agreement with respect to the employment of Executive by the Company and supersede all prior understandings and agreements, whether written or oral, regarding Executive's service to the Company, including without limitation, the Offer Letter. The Parties further intend that this Agreement, together with the Confidentiality Agreement, shall constitute the complete and exclusive statement of their terms and that no extrinsic evidence whatsoever may be introduced in any judicial, administrative, or other legal proceeding to vary the terms of this Agreement or the Confidentiality Agreement. Notwithstanding the foregoing, in the event of any conflict between the terms of the Confidentiality Agreement and the terms of this Agreement, the terms of this Agreement shall prevail.

(g) Amendments; Waivers. This Agreement may not be modified, amended, or terminated except by an instrument in writing signed by Executive and a duly authorized representative of the Company. By an instrument in writing similarly executed, Executive or a duly authorized officer of the Company, as applicable, may waive compliance by the other Party with any specifically identified provision of this Agreement that such other Party was or is obligated to comply with or perform; *provided*, *however*, that such waiver shall not operate as a waiver of, or estoppel with respect to, any other or subsequent failure. No failure to exercise and no delay in exercising any right, remedy, or power hereunder shall preclude any other or further exercise of any other right, remedy, or power provided herein or by law or in equity.

(h) Dispute Resolution. To ensure the timely and economical resolution of disputes that arise in connection with this Agreement, Executive and the Company agree that any and all controversies, claims and disputes arising out of or relating to this Agreement, including without limitation any alleged violation of its terms, shall be resolved be resolved solely and exclusively by final and binding arbitration held in Alameda County, California through JAMS in conformity with California law and the then-existing JAMS employment arbitration rules, which can be found at https://www.jamsadr.com/rules-employment-arbitration/. The arbitrator shall: (a) provide adequate discovery for the resolution of the dispute; and (b) issue a written arbitration decision, to include the arbitrator's essential findings and conclusions and a statement of the award. The arbitrator shall award the prevailing Party attorneys' fees and expert fees, if any. Notwithstanding the foregoing, it is acknowledged that it will be impossible to measure in money the damages that would be suffered if the Parties fail to comply with any of the obligations imposed on them under Section 8(a), and that in the event of any such failure, an aggrieved person will be irreparably damaged and will not have an adequate remedy at law. Any such person shall,

therefore, be entitled to injunctive relief, including specific performance, to enforce such obligations, and if any action shall be brought in equity to enforce any of the provisions of Section 8(a), none of the Parties shall raise the defense that there is an adequate remedy at law. Executive and the Company understand that by agreement to arbitrate any claim pursuant to this Section 8(h), they will not have the right to have any claim decided by a jury or a court, but shall instead have any claim decided through arbitration. Executive and the Company waive any constitutional or other right to bring claims covered by this Agreement other than in their individual capacities. Except as may be prohibited by applicable law, the foregoing waiver includes the ability to assert claims as a plaintiff or class member in any purported class or representative proceeding.

(i) Enforcement. If any provision of this Agreement is held to be illegal, invalid, or unenforceable under present or future laws, such provision shall be fully severable; this Agreement shall be construed and enforced as if such illegal, invalid, or unenforceable provision had never comprised a portion of this Agreement; and the remaining provisions of this Agreement shall remain in full force and effect and shall not be affected by the illegal, invalid, or unenforceable provision or by its severance from this Agreement. Furthermore, in lieu of such illegal, invalid, or unenforceable provision there shall be added automatically as part of this Agreement a provision as similar in terms to such illegal, invalid, or unenforceable provision as may be possible and be legal, valid, and enforceable.

(j) Withholding. The Company shall be entitled to withhold from any amounts payable under this Agreement any federal, state, local, or foreign withholding or other taxes or charges which the Company is required to withhold. The Company shall be entitled to rely on an opinion of counsel if any questions as to the amount or requirement of withholding shall arise.

(k) Whistleblower Protections and Trade Secrets. Notwithstanding anything to the contrary contained herein, nothing in this Agreement prohibits Executive from reporting possible violations of federal law or regulation to any United States governmental agency or entity in accordance with the provisions of and rules promulgated under Section 21F of the Securities Exchange Act of 1934 or Section 806 of the Sarbanes-Oxley Act of 2002, or any other whistleblower protection provisions of state or federal law or regulation (including the right to receive an award for information provided to any such government agencies). Furthermore, in accordance with 18 U.S.C. § 1833, notwithstanding anything to the contrary in this Agreement: (i) Executive shall not be in breach of this Agreement, and shall not be held criminally or civilly liable under any federal or state trade secret law (x) for the disclosure of a trade secret that is made in confidence to a federal, state, or local government official or to an attorney solely for the purpose of reporting or investigating a suspected violation of law, or (y) for the disclosure of a trade secret that is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal; and (ii) if Executive files a lawsuit for retaliation by the Company for reporting a suspected violation of law, Executive may disclose the trade secret to Executive's attorney, and may use the trade secret information in the court proceeding, if Executive files any document containing the trade secret under seal, and does not disclose the trade secret, except pursuant to court order.

9. Prior Employment. Executive represents and warrants that Executive's acceptance of employment with the Company has not breached, and the performance of Executive's duties hereunder will not breach, any duty owed by Executive to any prior employer or other person. Executive further represents and warrants to the Company that (a) the performance of Executive's obligations hereunder will not violate any agreement between Executive and any other person, firm, organization, or other entity; (b) Executive is not bound by the terms of any agreement with any previous employer or other party to refrain from competing, directly or indirectly, with the business of such previous employer or other party that would be violated by Executive entering into this Agreement and/or providing services to the Company pursuant to the terms of this Agreement; and (c) Executive's performance of Executive's duties under this Agreement will not require Executive to, and Executive shall not, rely on in the performance of Executive's duties or disclose to the Company or any other person or entity or induce the Company in any way to use or rely on any trade secret or other confidential or proprietary information or material belonging to any previous employer of Executive.

10. Golden Parachute Excise Tax.

(a) Best Pay. Any provision of this Agreement to the contrary notwithstanding, if any payment or benefit Executive would receive from the Company pursuant to this Agreement or otherwise ("***Payment***") would (i) constitute a "parachute payment" within the meaning of Section 280G of the Code and (ii) but for this sentence, be subject to the excise tax imposed by Section 4999 of the Code (the "***Excise Tax***"), then such Payment will be equal to the Reduced Amount (as defined below). The "***Reduced Amount***" will be either (A) the largest portion of the Payment that would result in no portion of the Payment (after reduction) being subject to the Excise Tax or (B) the entire Payment, whichever amount after taking into account all applicable federal, state, and local employment taxes, income taxes, and the Excise Tax (all computed at the highest applicable marginal rate, net of the maximum reduction in federal income taxes which could be obtained from a deduction of such state and local taxes), results in Executive' s receipt, on an after-tax basis, of the greater economic benefit notwithstanding that all or some portion of the Payment may be subject to the Excise Tax. If a reduction in a Payment is required pursuant to the preceding sentence and the Reduced Amount is determined pursuant to clause (A) of the preceding sentence, the reduction shall occur in the manner (the "***Reduction Method***") that results in the greatest economic benefit for Executive. If more than one method of reduction will result in the same economic benefit, the items so reduced will be reduced pro rata (the "***Pro Rata Reduction Method***"). Notwithstanding the foregoing, if the Reduction Method or the Pro Rata Reduction Method would result in any portion of the Payment being subject to taxes pursuant to Section 409A (as defined below) that would not otherwise be subject to taxes pursuant to Section 409A, then the Reduction Method and/or the Pro Rata Reduction Method, as the case may be, shall be modified so as to avoid the imposition of taxes pursuant to Section 409A as follows: (1) as a first priority, the modification shall preserve to the greatest extent possible, the greatest economic benefit for Executive as determined on an after-tax basis; (2) as a second priority, Payments that are contingent on future events (*e.g.*, being terminated without cause), shall be reduced (or eliminated) before Payments that are not contingent on future events; and (3) as a third priority, Payments that are "deferred compensation" within the meaning of Section 409A shall be reduced (or eliminated) before Payments that are not deferred compensation within the meaning of Section 409A.

(b) Accounting Firm. The accounting firm engaged by the Company for general tax purposes as of the day prior to the Change in Control will perform the calculations set forth in Section 10(a). If the firm so engaged by the Company is serving as the accountant or auditor for the acquiring company, the Company will appoint a nationally recognized accounting

firm to make the determinations required hereunder. The Company will bear all expenses with respect to the determinations by such firm required to be made hereunder. The accounting firm engaged to make the determinations hereunder will provide its calculations, together with detailed supporting documentation, to the Company within 30 days before the consummation of a Change in Control (if requested at that time by the Company) or such other time as requested by the Company. If the accounting firm determines that no Excise Tax is payable with respect to a Payment, either before or after the application of the Reduced Amount, it will furnish the Company with documentation reasonably acceptable to the Company that no Excise Tax will be imposed with respect to such Payment. Any good faith determinations of the accounting firm made hereunder will be final, binding and conclusive upon the Company and Executive.

11. Section 409A.

(a) General. The intent of the Parties is that the payments and benefits under this Agreement comply with or be exempt from Section 409A of the Code and the Department of Treasury regulations and other interpretive guidance issued thereunder, including without limitation any such regulations or other guidance that may be issued after the Effective Date, ("***Section 409A***") and, accordingly, to the maximum extent permitted, this Agreement shall be interpreted to be in compliance therewith. If Executive notifies the Company that Executive has received advice of tax counsel of a national reputation with expertise in Section 409A that any provision of this Agreement would cause Executive to incur any additional tax or interest under Section 409A (with specificity as to the reason therefor) or the Company independently makes such determination, the Company and Executive shall take commercially reasonable efforts to reform such provision to try to comply with or be exempt from Section 409A through good faith modifications to the minimum extent reasonably appropriate to conform with Section 409A, *provided* that any such modifications shall not increase the cost or liability to the Company. To the extent that any provision hereof is modified in order to comply with or be exempt from Section 409A, such modification shall be made in good faith and shall, to the maximum extent reasonably possible, maintain the original intent and economic benefit to Executive and the Company of the applicable provision without violating the provisions of Section 409A.

(b) Separation from Service. Notwithstanding any provision to the contrary in this Agreement: (i) no amount that constitutes "deferred compensation" under Section 409A shall be payable pursuant to Section 6 unless the termination of Executive's employment constitutes a "separation from service" within the meaning of Section 1.409A-1(h) of the Department of Treasury Regulations ("***Separation from Service***"); (ii) for purposes of Section 409A, Executive's right to receive installment payments shall be treated as a right to receive a series of separate and distinct payments; and (iii) to the extent that any reimbursement of expenses or in-kind benefits constitutes "deferred compensation" under Section 409A, such reimbursement or benefit shall be provided no later than December 31st of the year following the year in which the expense was incurred. The amount of expenses reimbursed in one year shall not affect the amount eligible for reimbursement in any subsequent year. The amount of any in-kind benefits provided in one year shall not affect the amount of in-kind benefits provided in any other year.

(c) Specified Employee. Notwithstanding anything in this Agreement to the contrary, if Executive is deemed by the Company at the time of Executive's Separation from Service to be a "specified employee" for purposes of Section 409A, to the extent delayed commencement of any portion of the benefits to which Executive is entitled under this Agreement is required in order to avoid a prohibited distribution under Section 409A, such portion of Executive's benefits shall not be provided to Executive prior to the earlier of (i) the expiration of the six-month period measured from the date of Executive's Separation from Service with the Company or (ii) the date of Executive's death. Upon the first business day following the expiration of the applicable Section 409A period, all payments deferred pursuant to the preceding sentence shall be paid in a lump sum to Executive (or Executive's estate or beneficiaries), and any remaining payments due to Executive under this Agreement shall be paid as otherwise provided herein.

(d) Release. Notwithstanding anything to the contrary in this Agreement, to the extent that any payments due under this Agreement as a result of Executive's termination of employment are subject to Executive's execution and delivery of a Release, (i) the Company shall deliver the Release to Executive within ten business days following Executive's Date of Termination, and the Company's failure to deliver a Release prior to the expiration of such ten business day period shall constitute a waiver of any requirement to execute a Release, (ii) if Executive fails to execute the Release on or prior to the Release Expiration Date (as defined below) or timely revokes Executive's acceptance of the Release thereafter, Executive shall not be entitled to any payments or benefits otherwise conditioned on the Release, and (iii) in any case where Executive's Date of Termination and the Release Expiration Date fall in two separate taxable years, any payments required to be made to Executive that are conditioned on the Release and are treated as nonqualified deferred compensation for purposes of Section 409A shall be made in the later taxable year. For purposes of this Section 11(d), "***Release Expiration Date***" shall mean the date that is 21 days following the date upon which the Company timely delivers the Release to Executive, or, in the event that Executive's termination of employment is "in connection with an exit incentive or other employment termination program" (as such phrase is defined in the Age Discrimination in Employment Act of 1967), the date that is 45 days following such delivery date. To the extent that any payments of nonqualified deferred compensation (within the meaning of Section 409A) due under this Agreement as a result of Executive's termination of employment are delayed pursuant to this Section 11(d), such amounts shall be paid in a lump sum on the first payroll date following the date that Executive executes and does not revoke the Release (and the applicable revocation period has expired) or, in the case of any payments subject to Section 11(d)(iii), on the first payroll period to occur in the subsequent taxable year, if later.

12. Employee Acknowledgement. Executive acknowledges that Executive has read and understands this Agreement, is fully aware of its legal effect, has not acted in reliance upon any representations or promises made by the Company other than those contained in writing herein, and has entered into this Agreement freely based on Executive's own judgment.

[*Signature Page Follows*]

The Parties have executed this Agreement as of the Agreement Date.

GRITSTONE ONCOLOGY, INC.

By: /s/ Andrew Allen
Name: Andrew Allen
Title: President and Chief Executive Officer

EXECUTIVE

By: /s/ Raphaël Rousseau
Name: Raphaël Rousseau

Address:

GRITSTONE ONCOLOGY, INC.

EMPLOYMENT AGREEMENT

This Employment Agreement (the "***Agreement***"), entered into as of September 16, 2018 (the "***Agreement Date***"), is between Gritstone Oncology, Inc., a Delaware corporation (the "***Company***") and Roman Yelensky ("***Executive***" and, together with the Company, the "***Parties***"). This Agreement will become effective as a binding contract as of the Agreement Date, but the operative provisions of this Agreement will only become effective as of immediately prior to the time the Company's registration statement relating to the initial public offering of the Company's common stock becomes effective (the "***Effective Date***"). This Agreement supersedes in its entirety that certain offer letter between Executive and the Company dated as of September 22, 2015 ("***Offer Letter***").

WHEREAS, the Company desires to assure itself of the continued services of Executive by engaging Executive to perform services as an employee of the Company under the terms hereof;

WHEREAS, Executive desires to provide continued services to the Company on the terms herein provided; and

WHEREAS, the Parties desire to execute this Agreement to supersede the Offer Letter in its entirety and reflect certain changes to Executive's employment with the Company effective as of the Effective Date.

NOW, THEREFORE, in consideration of the foregoing, and for other good and valuable consideration, including the respective covenants and agreements set forth below, the receipt and sufficiency of which are hereby acknowledged, the Parties hereto agree as follows:

1. Employment.

(a) General. The Company shall employ Executive upon the terms and conditions provided herein effective as of the Effective Date.

(b) Position and Duties. Effective on the Effective Date, Executive: (i) shall continue to serve as the Company's Executive Vice President and Chief Technology Officer, with responsibilities, duties, and authority usual and customary for such position, subject to direction by the Chief Executive Officer of the Company (the "***CEO***"); (ii) shall continue to report directly to the CEO; and (iii) agrees promptly and faithfully to comply with all present and future policies, requirements, rules and regulations, and reasonable directions and requests, of the Company in connection with the Company's business. At the Company's request, Executive shall serve the Company and/or its subsidiaries and affiliates in such other capacities in addition to the foregoing as the Company shall designate, provided that such additional capacities are consistent with Executive's position as the Company's Executive Vice President and Chief Technology Officer. In the event that Executive serves in any one or more of such additional capacities, Executive's compensation shall not automatically be increased on account of such additional service.

(c) Performance of Executive's Duties. During Executive's employment with the Company, and except for periods of illness, vacation, disability, or reasonable leaves of absence or as discussed in Section 1(e), Executive shall devote Executive's full time and attention to the business and affairs of the Company pursuant to the general direction of the CEO. The rights of Executive under this Agreement shall not be affected by any change in the title, duties, or capacity of Executive during Executive's employment with the Company.

(d) Principal Office. Executive will work principally at the Company's facility located in Cambridge, Massachusetts.

(e) Exclusivity. Except with the prior written approval of the CEO (which the CEO may grant or withhold in his or her sole and absolute discretion), Executive shall devote substantially all of Executive's working time, attention, and energies to the business of the Company, except during any paid vacation or other excused absence periods. Nothing in this section prevents Executive from engaging in additional activities in connection with personal investments and community affairs. Executive may also serve as a member of the board of directors or board of advisors of another organization provided (i) such organization is not a competitor of the Company; (ii) Executive receives prior written approval from the Company's CEO; and (iii) such activities do not individually or in the aggregate interfere with the performance of Executive's duties under this Agreement, violate the Company's standards of conduct then in effect, or raise a conflict under the Company's conflict of interest policies.

2. Term. The period of Executive's employment under this Agreement shall commence on the Effective Date and shall continue until Executive's employment with the Company is terminated pursuant to Section 5. The phrase "***Term***" as used in this Agreement shall refer to the entire period of employment of Executive by the Company.

3. Compensation and Related Matters.

(a) Annual Base Salary. During the Term, Executive shall receive a base salary at the rate of $350,000 per year (as may be increased from time to time, the "***Annual Base Salary***"), subject to withholdings and deductions, which shall be paid to Executive in accordance with the customary payroll practices and procedures of the Company. Such Annual Base Salary shall be reviewed by the CEO, and, as applicable, the Board of Directors of the Company (the "***Board***") and/or the Compensation Committee of the Board, not less than annually.

(b) Annual Bonus. Executive shall be eligible to receive a discretionary annual bonus based on Executive's achievement of performance objectives as mutually agreed between Executive and the CEO, such bonus to be targeted at 35% of Executive's Annual Base Salary (the "***Annual Bonus***"). Any Annual Bonus approved by the Board, the Compensation Committee of the Board and/or the CEO shall be paid at the same time annual bonuses are paid to other executives of the Company generally, subject to Executive's continuous employment through the date of approval.

(c) Benefits. Executive shall be entitled to participate in such employee and executive benefit plans and programs as the Company may from time to time offer to provide to its executives, subject to the terms and conditions of such plans. Notwithstanding the foregoing, nothing herein is intended, or shall be construed, to require the Company to institute or continue any, or any particular, plan or benefit.

(d) Business Expenses. The Company shall reimburse Executive for all reasonable, documented, out-of-pocket travel and other business expenses incurred by Executive in the performance of Executive's duties to the Company in accordance with the Company's applicable expense reimbursement policies and procedures as are in effect from time to time.

(e) Vacation. Executive will be entitled to paid vacation in accordance with the Company's vacation policy.

4. Equity Awards. Executive shall be eligible for such stock options and equity awards as may be determined by the Company, in its sole discretion.

5. Termination.

(a) At-Will Employment. The Company and Executive acknowledge that Executive's employment is and shall continue to be at-will, as defined under applicable law. This means that it is not for any specified period of time and can be terminated by Executive or by the Company at any time, with or without advance notice, and for any or no particular reason or cause. It also means that Executive's job duties, title, and responsibility and reporting level, work schedule, compensation, and benefits, as well as the Company's personnel policies and procedures, may be changed with prospective effect, with or without notice, at any time in the sole discretion of the Company (subject to any ramification such changes may have under Section 6 of this Agreement). This "at-will" nature of Executive's employment shall remain unchanged during Executive's tenure as an employee and may not be changed, except in an express writing signed by Executive and a duly-authorized officer of the Company. If Executive's employment terminates for any lawful reason, Executive shall not be entitled to any payments, benefits, damages, award, or compensation other than as provided in this Agreement.

(b) Notice of Termination. During the Term, any termination of Executive's employment by the Company or by Executive (other than by reason of death) shall be communicated by written notice (a "***Notice of Termination***") from one Party hereto to the other Party hereto (i) indicating the specific termination provision in this Agreement relied upon, if any, (ii) setting forth in reasonable detail the facts and circumstances claimed to provide a basis for termination of Executive's employment under the provision so indicated, and (iii) specifying the Date of Termination (as defined below). The failure by the Company to set forth in the Notice of Termination all of the facts and circumstances which contribute to a showing of Cause (as defined below) shall not waive any right of the Company hereunder or preclude the Company from asserting such fact or circumstance in enforcing their rights hereunder.

(c) Date of Termination. For purposes of this Agreement, "***Date of Termination***" shall mean the date of the termination of Executive's employment with the Company specified in a Notice of Termination.

(d) Deemed Resignation. Upon termination of Executive's employment for any reason, Executive shall be deemed to have resigned from all offices and board memberships, if any, then held with the Company or any of its affiliates, and, at the Company's request, Executive shall execute such documents as are necessary or desirable to effectuate such resignations.

6. Consequences of Termination.

(a) Payments of Accrued Obligations upon all Terminations of Employment. Upon a termination of Executive's employment for any reason, Executive (or Executive's estate or legal representative, as applicable) shall be entitled to receive, within 30 days after Executive's Date of Termination (or such earlier date as may be required by applicable law): (i) any portion of Executive's Annual Base Salary earned through Executive's Date of Termination not theretofore paid, (ii) any expenses owed to Executive under Section 3, (iii) any accrued but unused paid time-off owed to Executive, (iv) any Annual Bonus approved by the Board, Compensation Committee of the Board and/or the CEO on or prior to the Date of Termination but unpaid as of the Date of Termination, and (v) any amount arising from Executive's participation in, or benefits under, any employee benefit plans, programs, or arrangements under Section 3, which amounts shall be payable in accordance with the terms and conditions of such employee benefit plans, programs, or arrangements. Except as otherwise set forth in Sections 6(b) and (c), the payments and benefits described in this Section 6(a) shall be the only payments and benefits payable in the event of Executive's termination of employment for any reason.

(b) Severance Payments upon Covered Termination Outside a Change in Control Period. If, during the Term, Executive experiences a Covered Termination outside a Change in Control Period (each as defined below), then in addition to the payments and benefits described in Section 6(a), the Company shall, subject to Executive's delivery to the Company of a waiver and release of claims agreement in a form approved by the Company (a "***Release***") that becomes effective and irrevocable in accordance with Section 11(d), provide Executive with the following:

(i) The Company shall pay to Executive an amount equal to the sum of (i) Executive's Annual Base Salary multiplied by 0.75 and (ii) Executive's target Annual Bonus. Such amount will be subject to applicable withholdings and payable in a single lump sum cash payment on the first regular payroll date following the date the Release becomes effective and irrevocable in accordance with Section 11(d).

(ii) During the period commencing on the Date of Termination and ending on the nine-month anniversary thereof or, if earlier, the date on which Executive becomes eligible for comparable replacement coverage under a subsequent employer's group health plan (in any case, the "***Non-CIC COBRA Period***"), subject to Executive's valid election to continue healthcare coverage under Section 4980B of the Internal Revenue Code of 1986, as amended (the "***Code***") and the regulations thereunder, the Company shall, in its sole discretion, either (A) continue to provide to Executive and Executive's dependents, at the Company's sole expense, or (B) reimburse Executive and Executive's dependents for coverage under its group health plan (if any) at the same levels in effect on the Date of Termination; *provided, however*, that if (1) any plan pursuant to which such benefits are provided is not, or ceases prior to the expiration of the continuation coverage period to be, exempt from the application of Section 409A under Treasury Regulation Section 1.409A-1(a)(5), (2) the Company is otherwise unable to continue to cover Executive or Executive's dependents under its group health plans, or (3) the Company cannot provide the benefit without violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), then, in any such case, an amount equal to each remaining Company subsidy shall thereafter be paid to Executive in substantially equal monthly installments over the Non-CIC COBRA Period (or remaining portion thereof).

(c) Severance Payments upon Covered Termination During a Change in Control Period. If, during the Term, Executive experiences a Covered Termination during a Change in Control Period, then, in addition to the payments and benefits described in Section 6(a), the Company shall, subject to Executive's delivery to the Company of a Release that becomes effective and irrevocable in accordance with Section 11(d), provide Executive with the following:

(i) The Company shall pay to Executive an amount equal to the sum of (i) Executive's Annual Base Salary and (ii) Executive's target Annual Bonus. Such amount will be subject to applicable withholdings and payable in a single lump sum cash payment on the first regular payroll date following the date the Release becomes effective and irrevocable in accordance with Section 11(d).

(ii) During the period commencing on the Date of Termination and ending on the 12-month anniversary thereof or, if earlier, the date on which Executive becomes eligible for comparable replacement coverage under a subsequent employer's group health plan (in any case, the "***CIC COBRA Period***"), subject to Executive's valid election to continue healthcare coverage under Section 4980B of the Code and the regulations thereunder, the Company shall, in its sole discretion, either (A) continue to provide to Executive and Executive's dependents, at the Company's sole expense, or (B) reimburse Executive and Executive's dependents for coverage under its group health plan (if any) at the same levels in effect on the Date of Termination; *provided, however*, that if (1) any plan pursuant to which such benefits are provided is not, or ceases prior to the expiration of the continuation coverage period to be, exempt from the application of Section 409A under Treasury Regulation Section 1.409A-1(a)(5), (2) the Company is otherwise unable to continue to cover Executive or Executive's dependents under its group health plans, or (3) the Company cannot provide the benefit without violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), then, in any such case, an amount equal to each remaining Company subsidy shall thereafter be paid to Executive in substantially equal monthly installments over the CIC COBRA Period (or remaining portion thereof).

(iii) Cause any unvested equity awards, including any stock options, restricted stock awards and any such awards subject to performance-based vesting, held by Executive as of the Date of Termination, to become fully vested and, if applicable, exercisable, and cause all restrictions and rights of repurchase on such awards to lapse with respect to all of the shares of the Company's Common Stock subject thereto.

(d) No Other Severance. The provisions of this Section 6 shall supersede in their entirety any severance payment provisions in any severance plan, policy, program, or other arrangement maintained by the Company except as otherwise approved by the Board.

(e) No Requirement to Mitigate; Survival. Executive shall not be required to mitigate the amount of any payment provided for under this Agreement by seeking other employment or in any other manner. Notwithstanding anything to the contrary in this Agreement, the termination of Executive's employment shall not impair the rights or obligations of any Party.

(f) Definition of Cause. For purposes hereof, "***Cause***" shall mean any one of the following: (i) Executive's material violation of any applicable material law or regulation respecting the business of the Company; (ii) Executive's conviction of, or plea of *nolo contendere* to, a felony or other crime involving moral turpitude; (iii) any act of dishonesty, fraud, or misrepresentation in relation to Executive's duties to the Company which act is materially and demonstrably injurious to the Company; (iv) Executive's willful and repeated failure to perform in any material respect Executive's duties hereunder after 15 days' notice and an opportunity to cure such failure and a reasonable opportunity to present to the Board Executive's position regarding any dispute relating to the existence of such failure (other than on account of disability); (v) Executive's failure to attempt in good faith to implement a clear and reasonable directive from the CEO or to comply with any of the Company's policies and procedures which failure is either material or occurs after written notice from the CEO; (vi) any act of gross misconduct which is materially and demonstrably injurious to the Company; or (vii) Executive's breach of fiduciary duty owed to the Company.

(g) Definition of Change in Control. For purposes of this Agreement, "***Change in Control***" shall mean (i) the acquisition by any person or group of affiliated or associated persons of more than 50% of the outstanding capital stock of the Company or voting securities representing more than 50% of the total voting power of outstanding securities of the Company; (ii) the consummation of a sale of all or substantially all of the assets of the Company to a third party; (iii) the consummation of any merger involving the Company in which, immediately after giving effect to such merger, less than a majority of the total voting power of outstanding stock of the surviving or resulting entity is then "beneficially owned" (within the meaning of Rule 13d-3 under the Securities Exchange Act of 1934, as amended) in the aggregate by the stockholders of the Company, as applicable, immediately prior to such merger. For the avoidance of doubt and notwithstanding anything herein to the contrary, in no event shall a transaction constitute a "Change in Control" if: (w) its sole purpose is to change the state of the Company's incorporation; (x) its sole purpose is to create a holding company that will be owned in substantially the same proportions by the persons who held the Company's securities immediately before such transaction; (y) it is effected primarily for the purpose of financing the Company with cash (as determined by the Board without regard to whether such transaction is effectuated by a merger, equity financing, or otherwise); or (z) it constitutes, or includes sales of shares in connection with, the initial public offering of the Company's capital stock. Notwithstanding the foregoing, a "Change in Control" must also constitute a "change in control event," as defined in Treasury Regulation §1.409A-3(i)(5).

(h) Definition of Change in Control Period. For purposes hereof, "***Change in Control Period***" shall mean the period of time commencing three months prior to a Change in Control and ending 12 months after such Change in Control.

(i) Definition of Covered Termination. For purposes hereof, "***Covered Termination***" shall mean the termination of Executive's employment by the Company without Cause or by Executive for Good Reason, and shall not include a termination due to Executive's death or disability.

(j) Definition of Good Reason. For purposes hereof, "***Good Reason***" shall mean any one of the following: (i) the material reduction of Executive's base salary or target annual performance bonus, (ii) the assignment to Executive of any duties materially and negatively inconsistent in any respect of Executive's position (including status, offices, titles and reporting requirements), authority, duties or responsibilities, or any other action by the Company which results in a material diminution in such position, authority, duties or responsibilities (including without limitation a requirement to report to any person or entity other than the CEO); or (iii) the Company's material breach of this Agreement, *provided*, that, in each case, Executive will not be deemed to have Good Reason unless (1) Executive first provides the Company with written notice of the condition giving rise to Good Reason within 30 days of its initial occurrence, (2) the Company or the successor company fails to cure such condition within 30 days after receiving such written notice (the "***Cure Period***"), and (3) Executive's resignation based on such Good Reason is effective within 30 days after the expiration of the Cure Period.

7. Assignment and Successors. The Company shall assign its rights and obligations under this Agreement to any successor to all or substantially all of the business or the assets of the Company (by merger or otherwise). This Agreement shall be binding upon and inure to the benefit of the Company, Executive, and their respective successors, assigns, personnel, and legal representatives, executors, administrators, heirs, distributees, devisees, and legatees, as applicable. None of Executive's rights or obligations may be assigned or transferred by Executive, other than Executive's rights to payments hereunder, which may be transferred only by will, operation of law, or as otherwise provided herein.

8. Miscellaneous Provisions.

(a) Confidentiality Agreement. Executive hereby affirms Executive's obligations under that certain Proprietary Information and Inventions Assignment Agreement by and between Executive and the Company dated as of September 23, 2015 (the "***Confidentiality Agreement***"). The Confidentiality Agreement shall survive the termination of this Agreement and Executive's employment with the Company for the applicable period(s) set forth therein. Notwithstanding the foregoing, in the event of any conflict between the terms of the Confidentiality Agreement and the terms of this Agreement, the terms of this Agreement shall prevail.

(b) Non-Solicitation of Employees. For a period of one year following Executive's Date of Termination, Executive shall not, either directly or indirectly (i) solicit for employment by any individual, corporation, firm, or other business, any employees, consultants, independent contractors, or other service providers of the Company or any of its affiliates, or (ii) solicit any employee or consultant of the Company or any of its affiliates to leave the employment or consulting of or cease providing services to the Company or any of its affiliates; *provided*, *however*, that the foregoing clauses (i) and (ii) shall not apply to a general advertisement or solicitation (or any hiring pursuant to such advertisement or solicitation) that is not specifically targeted to such employees or consultants.

(c) Governing Law. This Agreement shall be governed, construed, interpreted, and enforced in accordance with its express terms, and otherwise in accordance with the substantive laws of the State of California, without giving effect to any principles of conflicts of law, whether of the State of California or any other jurisdiction, and where applicable, the laws of the United States, that would result in the application of the laws of any other jurisdiction.

(d) Validity. The invalidity or unenforceability of any provision or provisions of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement, which shall remain in full force and effect.

(e) Counterparts. This Agreement may be executed in several counterparts, each of which shall be deemed to be an original, but all of which together will constitute one and the same Agreement. Signatures delivered by facsimile shall be deemed effective for all purposes.

(f) Entire Agreement. The terms of this Agreement, together with the Confidentiality Agreement, are intended by the Parties to be the final expression of their agreement with respect to the employment of Executive by the Company and supersede all prior understandings and agreements, whether written or oral, regarding Executive's service to the Company, including without limitation, the Offer Letter. The Parties further intend that this Agreement, together with the Confidentiality Agreement, shall constitute the complete and exclusive statement of their terms and that no extrinsic evidence whatsoever may be introduced in any judicial, administrative, or other legal proceeding to vary the terms of this Agreement or the Confidentiality Agreement. Notwithstanding the foregoing, in the event of any conflict between the terms of the Confidentiality Agreement and the terms of this Agreement, the terms of this Agreement shall prevail.

(g) Amendments; Waivers. This Agreement may not be modified, amended, or terminated except by an instrument in writing signed by Executive and a duly authorized representative of the Company. By an instrument in writing similarly executed, Executive or a duly authorized officer of the Company, as applicable, may waive compliance by the other Party with any specifically identified provision of this Agreement that such other Party was or is obligated to comply with or perform; *provided*, *however*, that such waiver shall not operate as a waiver of, or estoppel with respect to, any other or subsequent failure. No failure to exercise and no delay in exercising any right, remedy, or power hereunder shall preclude any other or further exercise of any other right, remedy, or power provided herein or by law or in equity.

(h) Dispute Resolution. To ensure the timely and economical resolution of disputes that arise in connection with this Agreement, Executive and the Company agree that any and all controversies, claims and disputes arising out of or relating to this Agreement, including without limitation any alleged violation of its terms, shall be resolved be resolved solely and exclusively by final and binding arbitration held in Alameda County, California through JAMS in conformity with California law and the then-existing JAMS employment arbitration rules, which can be found at https://www.jamsadr.com/rules-employment-arbitration/. The arbitrator shall: (a) provide adequate discovery for the resolution of the dispute; and (b) issue a written arbitration decision, to include the arbitrator's essential findings and conclusions and a statement of the award. The arbitrator shall award the prevailing Party attorneys' fees and expert fees, if any. Notwithstanding the foregoing, it is acknowledged that it will be impossible to measure in money the damages that would be suffered if the Parties fail to comply with any of the obligations imposed on them under Section 8(a), and that in the event of any such failure, an aggrieved person will be irreparably damaged and will not have an adequate remedy at law. Any such person shall,

therefore, be entitled to injunctive relief, including specific performance, to enforce such obligations, and if any action shall be brought in equity to enforce any of the provisions of Section 8(a), none of the Parties shall raise the defense that there is an adequate remedy at law. Executive and the Company understand that by agreement to arbitrate any claim pursuant to this Section 8(h), they will not have the right to have any claim decided by a jury or a court, but shall instead have any claim decided through arbitration. Executive and the Company waive any constitutional or other right to bring claims covered by this Agreement other than in their individual capacities. Except as may be prohibited by applicable law, the foregoing waiver includes the ability to assert claims as a plaintiff or class member in any purported class or representative proceeding.

(i) Enforcement. If any provision of this Agreement is held to be illegal, invalid, or unenforceable under present or future laws, such provision shall be fully severable; this Agreement shall be construed and enforced as if such illegal, invalid, or unenforceable provision had never comprised a portion of this Agreement; and the remaining provisions of this Agreement shall remain in full force and effect and shall not be affected by the illegal, invalid, or unenforceable provision or by its severance from this Agreement. Furthermore, in lieu of such illegal, invalid, or unenforceable provision there shall be added automatically as part of this Agreement a provision as similar in terms to such illegal, invalid, or unenforceable provision as may be possible and be legal, valid, and enforceable.

(j) Withholding. The Company shall be entitled to withhold from any amounts payable under this Agreement any federal, state, local, or foreign withholding or other taxes or charges which the Company is required to withhold. The Company shall be entitled to rely on an opinion of counsel if any questions as to the amount or requirement of withholding shall arise.

(k) Whistleblower Protections and Trade Secrets. Notwithstanding anything to the contrary contained herein, nothing in this Agreement prohibits Executive from reporting possible violations of federal law or regulation to any United States governmental agency or entity in accordance with the provisions of and rules promulgated under Section 21F of the Securities Exchange Act of 1934 or Section 806 of the Sarbanes-Oxley Act of 2002, or any other whistleblower protection provisions of state or federal law or regulation (including the right to receive an award for information provided to any such government agencies). Furthermore, in accordance with 18 U.S.C. § 1833, notwithstanding anything to the contrary in this Agreement: (i) Executive shall not be in breach of this Agreement, and shall not be held criminally or civilly liable under any federal or state trade secret law (x) for the disclosure of a trade secret that is made in confidence to a federal, state, or local government official or to an attorney solely for the purpose of reporting or investigating a suspected violation of law, or (y) for the disclosure of a trade secret that is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal; and (ii) if Executive files a lawsuit for retaliation by the Company for reporting a suspected violation of law, Executive may disclose the trade secret to Executive's attorney, and may use the trade secret information in the court proceeding, if Executive files any document containing the trade secret under seal, and does not disclose the trade secret, except pursuant to court order.

9. Prior Employment. Executive represents and warrants that Executive's acceptance of employment with the Company has not breached, and the performance of Executive's duties hereunder will not breach, any duty owed by Executive to any prior employer or other person. Executive further represents and warrants to the Company that (a) the performance of Executive's obligations hereunder will not violate any agreement between Executive and any other person, firm, organization, or other entity; (b) Executive is not bound by the terms of any agreement with any previous employer or other party to refrain from competing, directly or indirectly, with the business of such previous employer or other party that would be violated by Executive entering into this Agreement and/or providing services to the Company pursuant to the terms of this Agreement; and (c) Executive's performance of Executive's duties under this Agreement will not require Executive to, and Executive shall not, rely on in the performance of Executive's duties or disclose to the Company or any other person or entity or induce the Company in any way to use or rely on any trade secret or other confidential or proprietary information or material belonging to any previous employer of Executive.

10. Golden Parachute Excise Tax.

(a) Best Pay. Any provision of this Agreement to the contrary notwithstanding, if any payment or benefit Executive would receive from the Company pursuant to this Agreement or otherwise ("***Payment***") would (i) constitute a "parachute payment" within the meaning of Section 280G of the Code and (ii) but for this sentence, be subject to the excise tax imposed by Section 4999 of the Code (the "***Excise Tax***"), then such Payment will be equal to the Reduced Amount (as defined below). The "***Reduced Amount***" will be either (A) the largest portion of the Payment that would result in no portion of the Payment (after reduction) being subject to the Excise Tax or (B) the entire Payment, whichever amount after taking into account all applicable federal, state, and local employment taxes, income taxes, and the Excise Tax (all computed at the highest applicable marginal rate, net of the maximum reduction in federal income taxes which could be obtained from a deduction of such state and local taxes), results in Executive' s receipt, on an after-tax basis, of the greater economic benefit notwithstanding that all or some portion of the Payment may be subject to the Excise Tax. If a reduction in a Payment is required pursuant to the preceding sentence and the Reduced Amount is determined pursuant to clause (A) of the preceding sentence, the reduction shall occur in the manner (the "***Reduction Method***") that results in the greatest economic benefit for Executive. If more than one method of reduction will result in the same economic benefit, the items so reduced will be reduced pro rata (the "***Pro Rata Reduction Method***"). Notwithstanding the foregoing, if the Reduction Method or the Pro Rata Reduction Method would result in any portion of the Payment being subject to taxes pursuant to Section 409A (as defined below) that would not otherwise be subject to taxes pursuant to Section 409A, then the Reduction Method and/or the Pro Rata Reduction Method, as the case may be, shall be modified so as to avoid the imposition of taxes pursuant to Section 409A as follows: (1) as a first priority, the modification shall preserve to the greatest extent possible, the greatest economic benefit for Executive as determined on an after-tax basis; (2) as a second priority, Payments that are contingent on future events (*e.g.*, being terminated without cause), shall be reduced (or eliminated) before Payments that are not contingent on future events; and (3) as a third priority, Payments that are "deferred compensation" within the meaning of Section 409A shall be reduced (or eliminated) before Payments that are not deferred compensation within the meaning of Section 409A.

(b) Accounting Firm. The accounting firm engaged by the Company for general tax purposes as of the day prior to the Change in Control will perform the calculations set forth in Section 10(a). If the firm so engaged by the Company is serving as the accountant or auditor for the acquiring company, the Company will appoint a nationally recognized accounting

firm to make the determinations required hereunder. The Company will bear all expenses with respect to the determinations by such firm required to be made hereunder. The accounting firm engaged to make the determinations hereunder will provide its calculations, together with detailed supporting documentation, to the Company within 30 days before the consummation of a Change in Control (if requested at that time by the Company) or such other time as requested by the Company. If the accounting firm determines that no Excise Tax is payable with respect to a Payment, either before or after the application of the Reduced Amount, it will furnish the Company with documentation reasonably acceptable to the Company that no Excise Tax will be imposed with respect to such Payment. Any good faith determinations of the accounting firm made hereunder will be final, binding and conclusive upon the Company and Executive.

11. Section 409A.

(a) General. The intent of the Parties is that the payments and benefits under this Agreement comply with or be exempt from Section 409A of the Code and the Department of Treasury regulations and other interpretive guidance issued thereunder, including without limitation any such regulations or other guidance that may be issued after the Effective Date, ("***Section 409A***") and, accordingly, to the maximum extent permitted, this Agreement shall be interpreted to be in compliance therewith. If Executive notifies the Company that Executive has received advice of tax counsel of a national reputation with expertise in Section 409A that any provision of this Agreement would cause Executive to incur any additional tax or interest under Section 409A (with specificity as to the reason therefor) or the Company independently makes such determination, the Company and Executive shall take commercially reasonable efforts to reform such provision to try to comply with or be exempt from Section 409A through good faith modifications to the minimum extent reasonably appropriate to conform with Section 409A, *provided* that any such modifications shall not increase the cost or liability to the Company. To the extent that any provision hereof is modified in order to comply with or be exempt from Section 409A, such modification shall be made in good faith and shall, to the maximum extent reasonably possible, maintain the original intent and economic benefit to Executive and the Company of the applicable provision without violating the provisions of Section 409A.

(b) Separation from Service. Notwithstanding any provision to the contrary in this Agreement: (i) no amount that constitutes "deferred compensation" under Section 409A shall be payable pursuant to Section 6 unless the termination of Executive's employment constitutes a "separation from service" within the meaning of Section 1.409A-1(h) of the Department of Treasury Regulations ("***Separation from Service***"); (ii) for purposes of Section 409A, Executive's right to receive installment payments shall be treated as a right to receive a series of separate and distinct payments; and (iii) to the extent that any reimbursement of expenses or in-kind benefits constitutes "deferred compensation" under Section 409A, such reimbursement or benefit shall be provided no later than December 31st of the year following the year in which the expense was incurred. The amount of expenses reimbursed in one year shall not affect the amount eligible for reimbursement in any subsequent year. The amount of any in-kind benefits provided in one year shall not affect the amount of in-kind benefits provided in any other year.

(c) Specified Employee. Notwithstanding anything in this Agreement to the contrary, if Executive is deemed by the Company at the time of Executive's Separation from Service to be a "specified employee" for purposes of Section 409A, to the extent delayed commencement of any portion of the benefits to which Executive is entitled under this Agreement is required in order to avoid a prohibited distribution under Section 409A, such portion of Executive's benefits shall not be provided to Executive prior to the earlier of (i) the expiration of the six-month period measured from the date of Executive's Separation from Service with the Company or (ii) the date of Executive's death. Upon the first business day following the expiration of the applicable Section 409A period, all payments deferred pursuant to the preceding sentence shall be paid in a lump sum to Executive (or Executive's estate or beneficiaries), and any remaining payments due to Executive under this Agreement shall be paid as otherwise provided herein.

(d) Release. Notwithstanding anything to the contrary in this Agreement, to the extent that any payments due under this Agreement as a result of Executive's termination of employment are subject to Executive's execution and delivery of a Release, (i) the Company shall deliver the Release to Executive within ten business days following Executive's Date of Termination, and the Company's failure to deliver a Release prior to the expiration of such ten business day period shall constitute a waiver of any requirement to execute a Release, (ii) if Executive fails to execute the Release on or prior to the Release Expiration Date (as defined below) or timely revokes Executive's acceptance of the Release thereafter, Executive shall not be entitled to any payments or benefits otherwise conditioned on the Release, and (iii) in any case where Executive's Date of Termination and the Release Expiration Date fall in two separate taxable years, any payments required to be made to Executive that are conditioned on the Release and are treated as nonqualified deferred compensation for purposes of Section 409A shall be made in the later taxable year. For purposes of this Section 11(d), "***Release Expiration Date***" shall mean the date that is 21 days following the date upon which the Company timely delivers the Release to Executive, or, in the event that Executive's termination of employment is "in connection with an exit incentive or other employment termination program" (as such phrase is defined in the Age Discrimination in Employment Act of 1967), the date that is 45 days following such delivery date. To the extent that any payments of nonqualified deferred compensation (within the meaning of Section 409A) due under this Agreement as a result of Executive's termination of employment are delayed pursuant to this Section 11(d), such amounts shall be paid in a lump sum on the first payroll date following the date that Executive executes and does not revoke the Release (and the applicable revocation period has expired) or, in the case of any payments subject to Section 11(d)(iii), on the first payroll period to occur in the subsequent taxable year, if later.

12. Employee Acknowledgement. Executive acknowledges that Executive has read and understands this Agreement, is fully aware of its legal effect, has not acted in reliance upon any representations or promises made by the Company other than those contained in writing herein, and has entered into this Agreement freely based on Executive's own judgment.

[*Signature Page Follows*]

The Parties have executed this Agreement as of the Agreement Date.

GRITSTONE ONCOLOGY, INC.

By: /s/ Andrew Allen
Name: Andrew Allen
Title: President and Chief Executive Officer

EXECUTIVE

By: /s/ Roman Yelensky
Name: Roman Yelensky

Address:

GRITSTONE ONCOLOGY, INC.

EMPLOYMENT AGREEMENT

This Employment Agreement (the "***Agreement***"), entered into as of September 16, 2018 (the "***Agreement Date***"), is between Gritstone Oncology, Inc., a Delaware corporation (the "***Company***") and Jean-Marc Bellemin ("***Executive***" and, together with the Company, the "***Parties***"). This Agreement will become effective as a binding contract as of the Agreement Date, but the operative provisions of this Agreement will only become effective as of immediately prior to the time the Company's registration statement relating to the initial public offering of the Company's common stock becomes effective (the "***Effective Date***"). This Agreement supersedes in its entirety that certain offer letter between Executive and the Company dated as of December 16, 2017 ("***Offer Letter***").

WHEREAS, the Company desires to assure itself of the continued services of Executive by engaging Executive to perform services as an employee of the Company under the terms hereof;

WHEREAS, Executive desires to provide continued services to the Company on the terms herein provided; and

WHEREAS, the Parties desire to execute this Agreement to supersede the Offer Letter in its entirety and reflect certain changes to Executive's employment with the Company effective as of the Effective Date.

NOW, THEREFORE, in consideration of the foregoing, and for other good and valuable consideration, including the respective covenants and agreements set forth below, the receipt and sufficiency of which are hereby acknowledged, the Parties hereto agree as follows:

1. Employment.

(a) General. The Company shall employ Executive upon the terms and conditions provided herein effective as of the Effective Date.

(b) Position and Duties. Effective on the Effective Date, Executive: (i) shall continue to serve as the Company's Executive Vice President and Chief Financial Officer, with responsibilities, duties, and authority usual and customary for such position, subject to direction by the Chief Executive Officer of the Company (the "***CEO***"); (ii) shall continue to report directly to the CEO; and (iii) agrees promptly and faithfully to comply with all present and future policies, requirements, rules and regulations, and reasonable directions and requests, of the Company in connection with the Company's business. At the Company's request, Executive shall serve the Company and/or its subsidiaries and affiliates in such other capacities in addition to the foregoing as the Company shall designate, provided that such additional capacities are consistent with Executive's position as the Company's Executive Vice President and Chief Financial Officer. In the event that Executive serves in any one or more of such additional capacities, Executive's compensation shall not automatically be increased on account of such additional service.

(c) Performance of Executive's Duties. During Executive's employment with the Company, and except for periods of illness, vacation, disability, or reasonable leaves of absence or as discussed in Section 1(e), Executive shall devote Executive's full time and attention to the business and affairs of the Company pursuant to the general direction of the CEO. The rights of Executive under this Agreement shall not be affected by any change in the title, duties, or capacity of Executive during Executive's employment with the Company.

(d) Principal Office. Executive will work principally at the Company's facility located in Emeryville, California.

(e) Exclusivity. Except with the prior written approval of the CEO (which the CEO may grant or withhold in his or her sole and absolute discretion), Executive shall devote substantially all of Executive's working time, attention, and energies to the business of the Company, except during any paid vacation or other excused absence periods. Nothing in this section prevents Executive from engaging in additional activities in connection with personal investments and community affairs. Executive may also serve as a member of the board of directors or board of advisors of another organization provided (i) such organization is not a competitor of the Company; (ii) Executive receives prior written approval from the Company's CEO; and (iii) such activities do not individually or in the aggregate interfere with the performance of Executive's duties under this Agreement, violate the Company's standards of conduct then in effect, or raise a conflict under the Company's conflict of interest policies.

2. Term. The period of Executive's employment under this Agreement shall commence on the Effective Date and shall continue until Executive's employment with the Company is terminated pursuant to Section 5. The phrase "***Term***" as used in this Agreement shall refer to the entire period of employment of Executive by the Company.

3. Compensation and Related Matters.

(a) Annual Base Salary. During the Term, Executive shall receive a base salary at the rate of $365,000 per year (as may be increased from time to time, the "***Annual Base Salary***"), subject to withholdings and deductions, which shall be paid to Executive in accordance with the customary payroll practices and procedures of the Company. Such Annual Base Salary shall be reviewed by the CEO, and, as applicable, the Board of Directors of the Company (the "***Board***") and/or the Compensation Committee of the Board, not less than annually.

(b) Annual Bonus. Executive shall be eligible to receive a discretionary annual bonus based on Executive's achievement of performance objectives as mutually agreed between Executive and the CEO, such bonus to be targeted at 35% of Executive's Annual Base Salary (the "***Annual Bonus***"). Any Annual Bonus approved by the Board, the Compensation Committee of the Board and/or the CEO shall be paid at the same time annual bonuses are paid to other executives of the Company generally, subject to Executive's continuous employment through the date of approval.

(c) Benefits. Executive shall be entitled to participate in such employee and executive benefit plans and programs as the Company may from time to time offer to provide to its executives, subject to the terms and conditions of such plans. Notwithstanding the foregoing, nothing herein is intended, or shall be construed, to require the Company to institute or continue any, or any particular, plan or benefit.

(d) Business Expenses. The Company shall reimburse Executive for all reasonable, documented, out-of-pocket travel and other business expenses incurred by Executive in the performance of Executive's duties to the Company in accordance with the Company's applicable expense reimbursement policies and procedures as are in effect from time to time.

(e) Vacation. Executive will be entitled to paid vacation in accordance with the Company's vacation policy.

4. Equity Awards. Executive shall be eligible for such stock options and equity awards as may be determined by the Company, in its sole discretion.

5. Termination.

(a) At-Will Employment. The Company and Executive acknowledge that Executive's employment is and shall continue to be at-will, as defined under applicable law. This means that it is not for any specified period of time and can be terminated by Executive or by the Company at any time, with or without advance notice, and for any or no particular reason or cause. It also means that Executive's job duties, title, and responsibility and reporting level, work schedule, compensation, and benefits, as well as the Company's personnel policies and procedures, may be changed with prospective effect, with or without notice, at any time in the sole discretion of the Company (subject to any ramification such changes may have under Section 6 of this Agreement). This "at-will" nature of Executive's employment shall remain unchanged during Executive's tenure as an employee and may not be changed, except in an express writing signed by Executive and a duly-authorized officer of the Company. If Executive's employment terminates for any lawful reason, Executive shall not be entitled to any payments, benefits, damages, award, or compensation other than as provided in this Agreement.

(b) Notice of Termination. During the Term, any termination of Executive's employment by the Company or by Executive (other than by reason of death) shall be communicated by written notice (a "***Notice of Termination***") from one Party hereto to the other Party hereto (i) indicating the specific termination provision in this Agreement relied upon, if any, (ii) setting forth in reasonable detail the facts and circumstances claimed to provide a basis for termination of Executive's employment under the provision so indicated, and (iii) specifying the Date of Termination (as defined below). The failure by the Company to set forth in the Notice of Termination all of the facts and circumstances which contribute to a showing of Cause (as defined below) shall not waive any right of the Company hereunder or preclude the Company from asserting such fact or circumstance in enforcing their rights hereunder.

(c) Date of Termination. For purposes of this Agreement, "***Date of Termination***" shall mean the date of the termination of Executive's employment with the Company specified in a Notice of Termination.

(d) Deemed Resignation. Upon termination of Executive's employment for any reason, Executive shall be deemed to have resigned from all offices and board memberships, if any, then held with the Company or any of its affiliates, and, at the Company's request, Executive shall execute such documents as are necessary or desirable to effectuate such resignations.

6. Consequences of Termination.

(a) Payments of Accrued Obligations upon all Terminations of Employment. Upon a termination of Executive's employment for any reason, Executive (or Executive's estate or legal representative, as applicable) shall be entitled to receive, within 30 days after Executive's Date of Termination (or such earlier date as may be required by applicable law): (i) any portion of Executive's Annual Base Salary earned through Executive's Date of Termination not theretofore paid, (ii) any expenses owed to Executive under Section 3, (iii) any accrued but unused paid time-off owed to Executive, (iv) any Annual Bonus approved by the Board, Compensation Committee of the Board and/or the CEO on or prior to the Date of Termination but unpaid as of the Date of Termination, and (v) any amount arising from Executive's participation in, or benefits under, any employee benefit plans, programs, or arrangements under Section 3, which amounts shall be payable in accordance with the terms and conditions of such employee benefit plans, programs, or arrangements. Except as otherwise set forth in Sections 6(b) and (c), the payments and benefits described in this Section 6(a) shall be the only payments and benefits payable in the event of Executive's termination of employment for any reason.

(b) Severance Payments upon Covered Termination Outside a Change in Control Period. If, during the Term, Executive experiences a Covered Termination outside a Change in Control Period (each as defined below), then in addition to the payments and benefits described in Section 6(a), the Company shall, subject to Executive's delivery to the Company of a waiver and release of claims agreement in a form approved by the Company (a "***Release***") that becomes effective and irrevocable in accordance with Section 11(d), provide Executive with the following:

(i) The Company shall pay to Executive an amount equal to the sum of (i) Executive's Annual Base Salary multiplied by 0.75 and (ii) Executive's target Annual Bonus. Such amount will be subject to applicable withholdings and payable in a single lump sum cash payment on the first regular payroll date following the date the Release becomes effective and irrevocable in accordance with Section 11(d).

(ii) During the period commencing on the Date of Termination and ending on the nine-month anniversary thereof or, if earlier, the date on which Executive becomes eligible for comparable replacement coverage under a subsequent employer's group health plan (in any case, the "***Non-CIC COBRA Period***"), subject to Executive's valid election to continue healthcare coverage under Section 4980B of the Internal Revenue Code of 1986, as amended (the "***Code***") and the regulations thereunder, the Company shall, in its sole discretion, either (A) continue to provide to Executive and Executive's dependents, at the Company's sole expense, or (B) reimburse Executive and Executive's dependents for coverage under its group health plan (if any) at the same levels in effect on the Date of Termination; *provided, however*, that if (1) any plan pursuant to which such benefits are provided is not, or ceases prior to the expiration of the continuation coverage period to be, exempt from the application of Section 409A under Treasury Regulation Section 1.409A-1(a)(5), (2) the Company is otherwise unable to continue to cover Executive or Executive's dependents under its group health plans, or (3) the Company cannot provide the benefit without violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), then, in any such case, an amount equal to each remaining Company subsidy shall thereafter be paid to Executive in substantially equal monthly installments over the Non-CIC COBRA Period (or remaining portion thereof).

(c) Severance Payments upon Covered Termination During a Change in Control Period. If, during the Term, Executive experiences a Covered Termination during a Change in Control Period, then, in addition to the payments and benefits described in Section 6(a), the Company shall, subject to Executive's delivery to the Company of a Release that becomes effective and irrevocable in accordance with Section 11(d), provide Executive with the following:

(i) The Company shall pay to Executive an amount equal to the sum of (i) Executive's Annual Base Salary and (ii) Executive's target Annual Bonus. Such amount will be subject to applicable withholdings and payable in a single lump sum cash payment on the first regular payroll date following the date the Release becomes effective and irrevocable in accordance with Section 11(d).

(ii) During the period commencing on the Date of Termination and ending on the 12-month anniversary thereof or, if earlier, the date on which Executive becomes eligible for comparable replacement coverage under a subsequent employer's group health plan (in any case, the "***CIC COBRA Period***"), subject to Executive's valid election to continue healthcare coverage under Section 4980B of the Code and the regulations thereunder, the Company shall, in its sole discretion, either (A) continue to provide to Executive and Executive's dependents, at the Company's sole expense, or (B) reimburse Executive and Executive's dependents for coverage under its group health plan (if any) at the same levels in effect on the Date of Termination; *provided, however*, that if (1) any plan pursuant to which such benefits are provided is not, or ceases prior to the expiration of the continuation coverage period to be, exempt from the application of Section 409A under Treasury Regulation Section 1.409A-1(a)(5), (2) the Company is otherwise unable to continue to cover Executive or Executive's dependents under its group health plans, or (3) the Company cannot provide the benefit without violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), then, in any such case, an amount equal to each remaining Company subsidy shall thereafter be paid to Executive in substantially equal monthly installments over the CIC COBRA Period (or remaining portion thereof).

(iii) Cause any unvested equity awards, including any stock options, restricted stock awards and any such awards subject to performance-based vesting, held by Executive as of the Date of Termination, to become fully vested and, if applicable, exercisable, and cause all restrictions and rights of repurchase on such awards to lapse with respect to all of the shares of the Company's Common Stock subject thereto.

(d) No Other Severance. The provisions of this Section 6 shall supersede in their entirety any severance payment provisions in any severance plan, policy, program, or other arrangement maintained by the Company except as otherwise approved by the Board.

(e) No Requirement to Mitigate; Survival. Executive shall not be required to mitigate the amount of any payment provided for under this Agreement by seeking other employment or in any other manner. Notwithstanding anything to the contrary in this Agreement, the termination of Executive's employment shall not impair the rights or obligations of any Party.

(f) Definition of Cause. For purposes hereof, "***Cause***" shall mean any one of the following: (i) Executive's material violation of any applicable material law or regulation respecting the business of the Company; (ii) Executive's conviction of, or plea of *nolo contendere* to, a felony or other crime involving moral turpitude; (iii) any act of dishonesty, fraud, or misrepresentation in relation to Executive's duties to the Company which act is materially and demonstrably injurious to the Company; (iv) Executive's willful and repeated failure to perform in any material respect Executive's duties hereunder after 15 days' notice and an opportunity to cure such failure and a reasonable opportunity to present to the Board Executive's position regarding any dispute relating to the existence of such failure (other than on account of disability); (v) Executive's failure to attempt in good faith to implement a clear and reasonable directive from the CEO or to comply with any of the Company's policies and procedures which failure is either material or occurs after written notice from the CEO; (vi) any act of gross misconduct which is materially and demonstrably injurious to the Company; or (vii) Executive's breach of fiduciary duty owed to the Company.

(g) Definition of Change in Control. For purposes of this Agreement, "***Change in Control***" shall mean (i) the acquisition by any person or group of affiliated or associated persons of more than 50% of the outstanding capital stock of the Company or voting securities representing more than 50% of the total voting power of outstanding securities of the Company; (ii) the consummation of a sale of all or substantially all of the assets of the Company to a third party; (iii) the consummation of any merger involving the Company in which, immediately after giving effect to such merger, less than a majority of the total voting power of outstanding stock of the surviving or resulting entity is then "beneficially owned" (within the meaning of Rule 13d-3 under the Securities Exchange Act of 1934, as amended) in the aggregate by the stockholders of the Company, as applicable, immediately prior to such merger. For the avoidance of doubt and notwithstanding anything herein to the contrary, in no event shall a transaction constitute a "Change in Control" if: (w) its sole purpose is to change the state of the Company's incorporation; (x) its sole purpose is to create a holding company that will be owned in substantially the same proportions by the persons who held the Company's securities immediately before such transaction; (y) it is effected primarily for the purpose of financing the Company with cash (as determined by the Board without regard to whether such transaction is effectuated by a merger, equity financing, or otherwise); or (z) it constitutes, or includes sales of shares in connection with, the initial public offering of the Company's capital stock. Notwithstanding the foregoing, a "Change in Control" must also constitute a "change in control event," as defined in Treasury Regulation §1.409A-3(i)(5).

(h) Definition of Change in Control Period. For purposes hereof, "***Change in Control Period***" shall mean the period of time commencing three months prior to a Change in Control and ending 12 months after such Change in Control.

(i) Definition of Covered Termination. For purposes hereof, "***Covered Termination***" shall mean the termination of Executive's employment by the Company without Cause or by Executive for Good Reason, and shall not include a termination due to Executive's death or disability.

(j) Definition of Good Reason. For purposes hereof, "***Good Reason***" shall mean any one of the following: (i) the material reduction of Executive's base salary or target annual performance bonus, (ii) the assignment to Executive of any duties materially and negatively inconsistent in any respect of Executive's position (including status, offices, titles and reporting requirements), authority, duties or responsibilities, or any other action by the Company which results in a material diminution in such position, authority, duties or responsibilities (including without limitation a requirement to report to any person or entity other than the CEO); or (iii) the Company's material breach of this Agreement, *provided*, that, in each case, Executive will not be deemed to have Good Reason unless (1) Executive first provides the Company with written notice of the condition giving rise to Good Reason within 30 days of its initial occurrence, (2) the Company or the successor company fails to cure such condition within 30 days after receiving such written notice (the "***Cure Period***"), and (3) Executive's resignation based on such Good Reason is effective within 30 days after the expiration of the Cure Period.

7. Assignment and Successors. The Company shall assign its rights and obligations under this Agreement to any successor to all or substantially all of the business or the assets of the Company (by merger or otherwise). This Agreement shall be binding upon and inure to the benefit of the Company, Executive, and their respective successors, assigns, personnel, and legal representatives, executors, administrators, heirs, distributees, devisees, and legatees, as applicable. None of Executive's rights or obligations may be assigned or transferred by Executive, other than Executive's rights to payments hereunder, which may be transferred only by will, operation of law, or as otherwise provided herein.

8. Miscellaneous Provisions.

(a) Confidentiality Agreement. Executive hereby affirms Executive's obligations under that certain Proprietary Information and Inventions Assignment Agreement by and between Executive and the Company dated as of December 17, 2017 (the "***Confidentiality Agreement***"). The Confidentiality Agreement shall survive the termination of this Agreement and Executive's employment with the Company for the applicable period(s) set forth therein. Notwithstanding the foregoing, in the event of any conflict between the terms of the Confidentiality Agreement and the terms of this Agreement, the terms of this Agreement shall prevail.

(b) Non-Solicitation of Employees. For a period of one year following Executive's Date of Termination, Executive shall not, either directly or indirectly (i) solicit for employment by any individual, corporation, firm, or other business, any employees, consultants, independent contractors, or other service providers of the Company or any of its affiliates, or (ii) solicit any employee or consultant of the Company or any of its affiliates to leave the employment or consulting of or cease providing services to the Company or any of its affiliates; *provided*, *however*, that the foregoing clauses (i) and (ii) shall not apply to a general advertisement or solicitation (or any hiring pursuant to such advertisement or solicitation) that is not specifically targeted to such employees or consultants.

(c) Governing Law. This Agreement shall be governed, construed, interpreted, and enforced in accordance with its express terms, and otherwise in accordance with the substantive laws of the State of California, without giving effect to any principles of conflicts of law, whether of the State of California or any other jurisdiction, and where applicable, the laws of the United States, that would result in the application of the laws of any other jurisdiction.

(d) Validity. The invalidity or unenforceability of any provision or provisions of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement, which shall remain in full force and effect.

(e) Counterparts. This Agreement may be executed in several counterparts, each of which shall be deemed to be an original, but all of which together will constitute one and the same Agreement. Signatures delivered by facsimile shall be deemed effective for all purposes.

(f) Entire Agreement. The terms of this Agreement, together with the Confidentiality Agreement, are intended by the Parties to be the final expression of their agreement with respect to the employment of Executive by the Company and supersede all prior understandings and agreements, whether written or oral, regarding Executive's service to the Company, including without limitation, the Offer Letter. The Parties further intend that this Agreement, together with the Confidentiality Agreement, shall constitute the complete and exclusive statement of their terms and that no extrinsic evidence whatsoever may be introduced in any judicial, administrative, or other legal proceeding to vary the terms of this Agreement or the Confidentiality Agreement. Notwithstanding the foregoing, in the event of any conflict between the terms of the Confidentiality Agreement and the terms of this Agreement, the terms of this Agreement shall prevail.

(g) Amendments; Waivers. This Agreement may not be modified, amended, or terminated except by an instrument in writing signed by Executive and a duly authorized representative of the Company. By an instrument in writing similarly executed, Executive or a duly authorized officer of the Company, as applicable, may waive compliance by the other Party with any specifically identified provision of this Agreement that such other Party was or is obligated to comply with or perform; *provided*, *however*, that such waiver shall not operate as a waiver of, or estoppel with respect to, any other or subsequent failure. No failure to exercise and no delay in exercising any right, remedy, or power hereunder shall preclude any other or further exercise of any other right, remedy, or power provided herein or by law or in equity.

(h) Dispute Resolution. To ensure the timely and economical resolution of disputes that arise in connection with this Agreement, Executive and the Company agree that any and all controversies, claims and disputes arising out of or relating to this Agreement, including without limitation any alleged violation of its terms, shall be resolved be resolved solely and exclusively by final and binding arbitration held in Alameda County, California through JAMS in conformity with California law and the then-existing JAMS employment arbitration rules, which can be found at https://www.jamsadr.com/rules-employment-arbitration/. The arbitrator shall: (a) provide adequate discovery for the resolution of the dispute; and (b) issue a written arbitration decision, to include the arbitrator's essential findings and conclusions and a statement of the award. The arbitrator shall award the prevailing Party attorneys' fees and expert fees, if any. Notwithstanding the foregoing, it is acknowledged that it will be impossible to measure in money the damages that would be suffered if the Parties fail to comply with any of the obligations imposed on them under Section 8(a), and that in the event of any such failure, an aggrieved person will be irreparably damaged and will not have an adequate remedy at law. Any such person shall,

therefore, be entitled to injunctive relief, including specific performance, to enforce such obligations, and if any action shall be brought in equity to enforce any of the provisions of Section 8(a), none of the Parties shall raise the defense that there is an adequate remedy at law. Executive and the Company understand that by agreement to arbitrate any claim pursuant to this Section 8(h), they will not have the right to have any claim decided by a jury or a court, but shall instead have any claim decided through arbitration. Executive and the Company waive any constitutional or other right to bring claims covered by this Agreement other than in their individual capacities. Except as may be prohibited by applicable law, the foregoing waiver includes the ability to assert claims as a plaintiff or class member in any purported class or representative proceeding.

(i) Enforcement. If any provision of this Agreement is held to be illegal, invalid, or unenforceable under present or future laws, such provision shall be fully severable; this Agreement shall be construed and enforced as if such illegal, invalid, or unenforceable provision had never comprised a portion of this Agreement; and the remaining provisions of this Agreement shall remain in full force and effect and shall not be affected by the illegal, invalid, or unenforceable provision or by its severance from this Agreement. Furthermore, in lieu of such illegal, invalid, or unenforceable provision there shall be added automatically as part of this Agreement a provision as similar in terms to such illegal, invalid, or unenforceable provision as may be possible and be legal, valid, and enforceable.

(j) Withholding. The Company shall be entitled to withhold from any amounts payable under this Agreement any federal, state, local, or foreign withholding or other taxes or charges which the Company is required to withhold. The Company shall be entitled to rely on an opinion of counsel if any questions as to the amount or requirement of withholding shall arise.

(k) Whistleblower Protections and Trade Secrets. Notwithstanding anything to the contrary contained herein, nothing in this Agreement prohibits Executive from reporting possible violations of federal law or regulation to any United States governmental agency or entity in accordance with the provisions of and rules promulgated under Section 21F of the Securities Exchange Act of 1934 or Section 806 of the Sarbanes-Oxley Act of 2002, or any other whistleblower protection provisions of state or federal law or regulation (including the right to receive an award for information provided to any such government agencies). Furthermore, in accordance with 18 U.S.C. § 1833, notwithstanding anything to the contrary in this Agreement: (i) Executive shall not be in breach of this Agreement, and shall not be held criminally or civilly liable under any federal or state trade secret law (x) for the disclosure of a trade secret that is made in confidence to a federal, state, or local government official or to an attorney solely for the purpose of reporting or investigating a suspected violation of law, or (y) for the disclosure of a trade secret that is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal; and (ii) if Executive files a lawsuit for retaliation by the Company for reporting a suspected violation of law, Executive may disclose the trade secret to Executive's attorney, and may use the trade secret information in the court proceeding, if Executive files any document containing the trade secret under seal, and does not disclose the trade secret, except pursuant to court order.

9. Prior Employment. Executive represents and warrants that Executive's acceptance of employment with the Company has not breached, and the performance of Executive's duties hereunder will not breach, any duty owed by Executive to any prior employer or other person. Executive further represents and warrants to the Company that (a) the performance of Executive's obligations hereunder will not violate any agreement between Executive and any other person, firm, organization, or other entity; (b) Executive is not bound by the terms of any agreement with any previous employer or other party to refrain from competing, directly or indirectly, with the business of such previous employer or other party that would be violated by Executive entering into this Agreement and/or providing services to the Company pursuant to the terms of this Agreement; and (c) Executive's performance of Executive's duties under this Agreement will not require Executive to, and Executive shall not, rely on in the performance of Executive's duties or disclose to the Company or any other person or entity or induce the Company in any way to use or rely on any trade secret or other confidential or proprietary information or material belonging to any previous employer of Executive.

10. Golden Parachute Excise Tax.

(a) Best Pay. Any provision of this Agreement to the contrary notwithstanding, if any payment or benefit Executive would receive from the Company pursuant to this Agreement or otherwise ("***Payment***") would (i) constitute a "parachute payment" within the meaning of Section 280G of the Code and (ii) but for this sentence, be subject to the excise tax imposed by Section 4999 of the Code (the "***Excise Tax***"), then such Payment will be equal to the Reduced Amount (as defined below). The "***Reduced Amount***" will be either (A) the largest portion of the Payment that would result in no portion of the Payment (after reduction) being subject to the Excise Tax or (B) the entire Payment, whichever amount after taking into account all applicable federal, state, and local employment taxes, income taxes, and the Excise Tax (all computed at the highest applicable marginal rate, net of the maximum reduction in federal income taxes which could be obtained from a deduction of such state and local taxes), results in Executive' s receipt, on an after-tax basis, of the greater economic benefit notwithstanding that all or some portion of the Payment may be subject to the Excise Tax. If a reduction in a Payment is required pursuant to the preceding sentence and the Reduced Amount is determined pursuant to clause (A) of the preceding sentence, the reduction shall occur in the manner (the "***Reduction Method***") that results in the greatest economic benefit for Executive. If more than one method of reduction will result in the same economic benefit, the items so reduced will be reduced pro rata (the "***Pro Rata Reduction Method***"). Notwithstanding the foregoing, if the Reduction Method or the Pro Rata Reduction Method would result in any portion of the Payment being subject to taxes pursuant to Section 409A (as defined below) that would not otherwise be subject to taxes pursuant to Section 409A, then the Reduction Method and/or the Pro Rata Reduction Method, as the case may be, shall be modified so as to avoid the imposition of taxes pursuant to Section 409A as follows: (1) as a first priority, the modification shall preserve to the greatest extent possible, the greatest economic benefit for Executive as determined on an after-tax basis; (2) as a second priority, Payments that are contingent on future events (*e.g.*, being terminated without cause), shall be reduced (or eliminated) before Payments that are not contingent on future events; and (3) as a third priority, Payments that are "deferred compensation" within the meaning of Section 409A shall be reduced (or eliminated) before Payments that are not deferred compensation within the meaning of Section 409A.

(b) Accounting Firm. The accounting firm engaged by the Company for general tax purposes as of the day prior to the Change in Control will perform the calculations set forth in Section 10(a). If the firm so engaged by the Company is serving as the accountant or auditor for the acquiring company, the Company will appoint a nationally recognized accounting

firm to make the determinations required hereunder. The Company will bear all expenses with respect to the determinations by such firm required to be made hereunder. The accounting firm engaged to make the determinations hereunder will provide its calculations, together with detailed supporting documentation, to the Company within 30 days before the consummation of a Change in Control (if requested at that time by the Company) or such other time as requested by the Company. If the accounting firm determines that no Excise Tax is payable with respect to a Payment, either before or after the application of the Reduced Amount, it will furnish the Company with documentation reasonably acceptable to the Company that no Excise Tax will be imposed with respect to such Payment. Any good faith determinations of the accounting firm made hereunder will be final, binding and conclusive upon the Company and Executive.

11. Section 409A.

(a) General. The intent of the Parties is that the payments and benefits under this Agreement comply with or be exempt from Section 409A of the Code and the Department of Treasury regulations and other interpretive guidance issued thereunder, including without limitation any such regulations or other guidance that may be issued after the Effective Date, ("***Section 409A***") and, accordingly, to the maximum extent permitted, this Agreement shall be interpreted to be in compliance therewith. If Executive notifies the Company that Executive has received advice of tax counsel of a national reputation with expertise in Section 409A that any provision of this Agreement would cause Executive to incur any additional tax or interest under Section 409A (with specificity as to the reason therefor) or the Company independently makes such determination, the Company and Executive shall take commercially reasonable efforts to reform such provision to try to comply with or be exempt from Section 409A through good faith modifications to the minimum extent reasonably appropriate to conform with Section 409A, *provided* that any such modifications shall not increase the cost or liability to the Company. To the extent that any provision hereof is modified in order to comply with or be exempt from Section 409A, such modification shall be made in good faith and shall, to the maximum extent reasonably possible, maintain the original intent and economic benefit to Executive and the Company of the applicable provision without violating the provisions of Section 409A.

(b) Separation from Service. Notwithstanding any provision to the contrary in this Agreement: (i) no amount that constitutes "deferred compensation" under Section 409A shall be payable pursuant to Section 6 unless the termination of Executive's employment constitutes a "separation from service" within the meaning of Section 1.409A-1(h) of the Department of Treasury Regulations ("***Separation from Service***"); (ii) for purposes of Section 409A, Executive's right to receive installment payments shall be treated as a right to receive a series of separate and distinct payments; and (iii) to the extent that any reimbursement of expenses or in-kind benefits constitutes "deferred compensation" under Section 409A, such reimbursement or benefit shall be provided no later than December 31st of the year following the year in which the expense was incurred. The amount of expenses reimbursed in one year shall not affect the amount eligible for reimbursement in any subsequent year. The amount of any in-kind benefits provided in one year shall not affect the amount of in-kind benefits provided in any other year.

(c) Specified Employee. Notwithstanding anything in this Agreement to the contrary, if Executive is deemed by the Company at the time of Executive's Separation from Service to be a "specified employee" for purposes of Section 409A, to the extent delayed commencement of any portion of the benefits to which Executive is entitled under this Agreement is required in order to avoid a prohibited distribution under Section 409A, such portion of Executive's benefits shall not be provided to Executive prior to the earlier of (i) the expiration of the six-month period measured from the date of Executive's Separation from Service with the Company or (ii) the date of Executive's death. Upon the first business day following the expiration of the applicable Section 409A period, all payments deferred pursuant to the preceding sentence shall be paid in a lump sum to Executive (or Executive's estate or beneficiaries), and any remaining payments due to Executive under this Agreement shall be paid as otherwise provided herein.

(d) Release. Notwithstanding anything to the contrary in this Agreement, to the extent that any payments due under this Agreement as a result of Executive's termination of employment are subject to Executive's execution and delivery of a Release, (i) the Company shall deliver the Release to Executive within ten business days following Executive's Date of Termination, and the Company's failure to deliver a Release prior to the expiration of such ten business day period shall constitute a waiver of any requirement to execute a Release, (ii) if Executive fails to execute the Release on or prior to the Release Expiration Date (as defined below) or timely revokes Executive's acceptance of the Release thereafter, Executive shall not be entitled to any payments or benefits otherwise conditioned on the Release, and (iii) in any case where Executive's Date of Termination and the Release Expiration Date fall in two separate taxable years, any payments required to be made to Executive that are conditioned on the Release and are treated as nonqualified deferred compensation for purposes of Section 409A shall be made in the later taxable year. For purposes of this Section 11(d), "***Release Expiration Date***" shall mean the date that is 21 days following the date upon which the Company timely delivers the Release to Executive, or, in the event that Executive's termination of employment is "in connection with an exit incentive or other employment termination program" (as such phrase is defined in the Age Discrimination in Employment Act of 1967), the date that is 45 days following such delivery date. To the extent that any payments of nonqualified deferred compensation (within the meaning of Section 409A) due under this Agreement as a result of Executive's termination of employment are delayed pursuant to this Section 11(d), such amounts shall be paid in a lump sum on the first payroll date following the date that Executive executes and does not revoke the Release (and the applicable revocation period has expired) or, in the case of any payments subject to Section 11(d)(iii), on the first payroll period to occur in the subsequent taxable year, if later.

12. Employee Acknowledgement. Executive acknowledges that Executive has read and understands this Agreement, is fully aware of its legal effect, has not acted in reliance upon any representations or promises made by the Company other than those contained in writing herein, and has entered into this Agreement freely based on Executive's own judgment.

[*Signature Page Follows*]

The Parties have executed this Agreement as of the Agreement Date.

GRITSTONE ONCOLOGY, INC.

By: /s/ Andrew Allen
Name: Andrew Allen
Title: President and Chief Executive Officer

EXECUTIVE

By: /s/ Jean-Marc Bellemin
Name: Jean-Marc Bellemin

Address:

_____

_____

_____

GRITSTONE ONCOLOGY, INC.

EMPLOYMENT AGREEMENT

This Employment Agreement (the "***Agreement***"), entered into as of September 16, 2018 (the "***Agreement Date***"), is between Gritstone Oncology, Inc., a Delaware corporation (the "***Company***") and Jayant Aphale ("***Executive***" and, together with the Company, the "***Parties***"). This Agreement will become effective as a binding contract as of the Agreement Date, but the operative provisions of this Agreement will only become effective as of immediately prior to the time the Company's registration statement relating to the initial public offering of the Company's common stock becomes effective (the "***Effective Date***"). This Agreement supersedes in its entirety that certain offer letter between Executive and the Company dated as of February 9, 2018 ("***Offer Letter***").

WHEREAS, the Company desires to assure itself of the continued services of Executive by engaging Executive to perform services as an employee of the Company under the terms hereof;

WHEREAS, Executive desires to provide continued services to the Company on the terms herein provided; and

WHEREAS, the Parties desire to execute this Agreement to supersede the Offer Letter in its entirety and reflect certain changes to Executive's employment with the Company effective as of the Effective Date.

NOW, THEREFORE, in consideration of the foregoing, and for other good and valuable consideration, including the respective covenants and agreements set forth below, the receipt and sufficiency of which are hereby acknowledged, the Parties hereto agree as follows:

1. Employment.

(a) General. The Company shall employ Executive upon the terms and conditions provided herein effective as of the Effective Date.

(b) Position and Duties. Effective on the Effective Date, Executive: (i) shall continue to serve as the Company's Executive Vice President of Technical Operations, with responsibilities, duties, and authority usual and customary for such position, subject to direction by the Chief Executive Officer of the Company (the "***CEO***"); (ii) shall continue to report directly to the CEO; and (iii) agrees promptly and faithfully to comply with all present and future policies, requirements, rules and regulations, and reasonable directions and requests, of the Company in connection with the Company's business. At the Company's request, Executive shall serve the Company and/or its subsidiaries and affiliates in such other capacities in addition to the foregoing as the Company shall designate, provided that such additional capacities are consistent with Executive's position as the Company's Executive Vice President of Technical Operations. In the event that Executive serves in any one or more of such additional capacities, Executive's compensation shall not automatically be increased on account of such additional service.

(c) Performance of Executive's Duties. During Executive's employment with the Company, and except for periods of illness, vacation, disability, or reasonable leaves of absence or as discussed in Section 1(e), Executive shall devote Executive's full time and attention to the business and affairs of the Company pursuant to the general direction of the CEO. The rights of Executive under this Agreement shall not be affected by any change in the title, duties, or capacity of Executive during Executive's employment with the Company.

(d) Principal Office. Executive will work principally at the Company's facility located in Emeryville, California.

(e) Exclusivity. Except with the prior written approval of the CEO (which the CEO may grant or withhold in his or her sole and absolute discretion), Executive shall devote substantially all of Executive's working time, attention, and energies to the business of the Company, except during any paid vacation or other excused absence periods. Nothing in this section prevents Executive from engaging in additional activities in connection with personal investments and community affairs. Executive may also serve as a member of the board of directors or board of advisors of another organization provided (i) such organization is not a competitor of the Company; (ii) Executive receives prior written approval from the Company's CEO; and (iii) such activities do not individually or in the aggregate interfere with the performance of Executive's duties under this Agreement, violate the Company's standards of conduct then in effect, or raise a conflict under the Company's conflict of interest policies.

2. Term. The period of Executive's employment under this Agreement shall commence on the Effective Date and shall continue until Executive's employment with the Company is terminated pursuant to Section 5. The phrase "***Term***" as used in this Agreement shall refer to the entire period of employment of Executive by the Company.

3. Compensation and Related Matters.

(a) Annual Base Salary. During the Term, Executive shall receive a base salary at the rate of $340,000 per year (as may be increased from time to time, the "***Annual Base Salary***"), subject to withholdings and deductions, which shall be paid to Executive in accordance with the customary payroll practices and procedures of the Company. Such Annual Base Salary shall be reviewed by the CEO, and, as applicable, the Board of Directors of the Company (the "***Board***") and/or the Compensation Committee of the Board, not less than annually.

(b) Annual Bonus. Executive shall be eligible to receive a discretionary annual bonus based on Executive's achievement of performance objectives as mutually agreed between Executive and the CEO, such bonus to be targeted at 35% of Executive's Annual Base Salary (the "***Annual Bonus***"). Any Annual Bonus approved by the Board, the Compensation Committee of the Board and/or the CEO shall be paid at the same time annual bonuses are paid to other executives of the Company generally, subject to Executive's continuous employment through the date of approval.

(c) Benefits. Executive shall be entitled to participate in such employee and executive benefit plans and programs as the Company may from time to time offer to provide to its executives, subject to the terms and conditions of such plans. Notwithstanding the foregoing, nothing herein is intended, or shall be construed, to require the Company to institute or continue any, or any particular, plan or benefit.

(d) Business Expenses. The Company shall reimburse Executive for all reasonable, documented, out-of-pocket travel and other business expenses incurred by Executive in the performance of Executive's duties to the Company in accordance with the Company's applicable expense reimbursement policies and procedures as are in effect from time to time.

(e) Vacation. Executive will be entitled to paid vacation in accordance with the Company's vacation policy.

4. Equity Awards. Executive shall be eligible for such stock options and equity awards as may be determined by the Company, in its sole discretion.

5. Termination.

(a) At-Will Employment. The Company and Executive acknowledge that Executive's employment is and shall continue to be at-will, as defined under applicable law. This means that it is not for any specified period of time and can be terminated by Executive or by the Company at any time, with or without advance notice, and for any or no particular reason or cause. It also means that Executive's job duties, title, and responsibility and reporting level, work schedule, compensation, and benefits, as well as the Company's personnel policies and procedures, may be changed with prospective effect, with or without notice, at any time in the sole discretion of the Company (subject to any ramification such changes may have under Section 6 of this Agreement). This "at-will" nature of Executive's employment shall remain unchanged during Executive's tenure as an employee and may not be changed, except in an express writing signed by Executive and a duly-authorized officer of the Company. If Executive's employment terminates for any lawful reason, Executive shall not be entitled to any payments, benefits, damages, award, or compensation other than as provided in this Agreement.

(b) Notice of Termination. During the Term, any termination of Executive's employment by the Company or by Executive (other than by reason of death) shall be communicated by written notice (a "***Notice of Termination***") from one Party hereto to the other Party hereto (i) indicating the specific termination provision in this Agreement relied upon, if any, (ii) setting forth in reasonable detail the facts and circumstances claimed to provide a basis for termination of Executive's employment under the provision so indicated, and (iii) specifying the Date of Termination (as defined below). The failure by the Company to set forth in the Notice of Termination all of the facts and circumstances which contribute to a showing of Cause (as defined below) shall not waive any right of the Company hereunder or preclude the Company from asserting such fact or circumstance in enforcing their rights hereunder.

(c) Date of Termination. For purposes of this Agreement, "***Date of Termination***" shall mean the date of the termination of Executive's employment with the Company specified in a Notice of Termination.

(d) Deemed Resignation. Upon termination of Executive's employment for any reason, Executive shall be deemed to have resigned from all offices and board memberships, if any, then held with the Company or any of its affiliates, and, at the Company's request, Executive shall execute such documents as are necessary or desirable to effectuate such resignations.

6. Consequences of Termination.

(a) Payments of Accrued Obligations upon all Terminations of Employment. Upon a termination of Executive's employment for any reason, Executive (or Executive's estate or legal representative, as applicable) shall be entitled to receive, within 30 days after Executive's Date of Termination (or such earlier date as may be required by applicable law): (i) any portion of Executive's Annual Base Salary earned through Executive's Date of Termination not theretofore paid, (ii) any expenses owed to Executive under Section 3, (iii) any accrued but unused paid time-off owed to Executive, (iv) any Annual Bonus approved by the Board, Compensation Committee of the Board and/or the CEO on or prior to the Date of Termination but unpaid as of the Date of Termination, and (v) any amount arising from Executive's participation in, or benefits under, any employee benefit plans, programs, or arrangements under Section 3, which amounts shall be payable in accordance with the terms and conditions of such employee benefit plans, programs, or arrangements. Except as otherwise set forth in Sections 6(b) and (c), the payments and benefits described in this Section 6(a) shall be the only payments and benefits payable in the event of Executive's termination of employment for any reason.

(b) Severance Payments upon Covered Termination Outside a Change in Control Period. If, during the Term, Executive experiences a Covered Termination outside a Change in Control Period (each as defined below), then in addition to the payments and benefits described in Section 6(a), the Company shall, subject to Executive's delivery to the Company of a waiver and release of claims agreement in a form approved by the Company (a "***Release***") that becomes effective and irrevocable in accordance with Section 11(d), provide Executive with the following:

(i) The Company shall pay to Executive an amount equal to the sum of (i) Executive's Annual Base Salary multiplied by 0.75 and (ii) Executive's target Annual Bonus. Such amount will be subject to applicable withholdings and payable in a single lump sum cash payment on the first regular payroll date following the date the Release becomes effective and irrevocable in accordance with Section 11(d).

(ii) During the period commencing on the Date of Termination and ending on the nine-month anniversary thereof or, if earlier, the date on which Executive becomes eligible for comparable replacement coverage under a subsequent employer's group health plan (in any case, the "***Non-CIC COBRA Period***"), subject to Executive's valid election to continue healthcare coverage under Section 4980B of the Internal Revenue Code of 1986, as amended (the "***Code***") and the regulations thereunder, the Company shall, in its sole discretion, either (A) continue to provide to Executive and Executive's dependents, at the Company's sole expense, or (B) reimburse Executive and Executive's dependents for coverage under its group health plan (if any) at the same levels in effect on the Date of Termination; *provided, however*, that if (1) any plan pursuant to which such benefits are provided is not, or ceases prior to the expiration of the continuation coverage period to be, exempt from the application of Section 409A under Treasury Regulation Section 1.409A-1(a)(5), (2) the Company is otherwise unable to continue to cover Executive or Executive's dependents under its group health plans, or (3) the Company cannot provide the benefit without violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), then, in any such case, an amount equal to each remaining Company subsidy shall thereafter be paid to Executive in substantially equal monthly installments over the Non-CIC COBRA Period (or remaining portion thereof).

(c) Severance Payments upon Covered Termination During a Change in Control Period. If, during the Term, Executive experiences a Covered Termination during a Change in Control Period, then, in addition to the payments and benefits described in Section 6(a), the Company shall, subject to Executive's delivery to the Company of a Release that becomes effective and irrevocable in accordance with Section 11(d), provide Executive with the following:

(i) The Company shall pay to Executive an amount equal to the sum of (i) Executive's Annual Base Salary and (ii) Executive's target Annual Bonus. Such amount will be subject to applicable withholdings and payable in a single lump sum cash payment on the first regular payroll date following the date the Release becomes effective and irrevocable in accordance with Section 11(d).

(ii) During the period commencing on the Date of Termination and ending on the 12-month anniversary thereof or, if earlier, the date on which Executive becomes eligible for comparable replacement coverage under a subsequent employer's group health plan (in any case, the "***CIC COBRA Period***"), subject to Executive's valid election to continue healthcare coverage under Section 4980B of the Code and the regulations thereunder, the Company shall, in its sole discretion, either (A) continue to provide to Executive and Executive's dependents, at the Company's sole expense, or (B) reimburse Executive and Executive's dependents for coverage under its group health plan (if any) at the same levels in effect on the Date of Termination; *provided, however*, that if (1) any plan pursuant to which such benefits are provided is not, or ceases prior to the expiration of the continuation coverage period to be, exempt from the application of Section 409A under Treasury Regulation Section 1.409A-1(a)(5), (2) the Company is otherwise unable to continue to cover Executive or Executive's dependents under its group health plans, or (3) the Company cannot provide the benefit without violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), then, in any such case, an amount equal to each remaining Company subsidy shall thereafter be paid to Executive in substantially equal monthly installments over the CIC COBRA Period (or remaining portion thereof).

(iii) Cause any unvested equity awards, including any stock options, restricted stock awards and any such awards subject to performance-based vesting, held by Executive as of the Date of Termination, to become fully vested and, if applicable, exercisable, and cause all restrictions and rights of repurchase on such awards to lapse with respect to all of the shares of the Company's Common Stock subject thereto.

(d) No Other Severance. The provisions of this Section 6 shall supersede in their entirety any severance payment provisions in any severance plan, policy, program, or other arrangement maintained by the Company except as otherwise approved by the Board.

(e) No Requirement to Mitigate; Survival. Executive shall not be required to mitigate the amount of any payment provided for under this Agreement by seeking other employment or in any other manner. Notwithstanding anything to the contrary in this Agreement, the termination of Executive's employment shall not impair the rights or obligations of any Party.

(f) Definition of Cause. For purposes hereof, "***Cause***" shall mean any one of the following: (i) Executive's material violation of any applicable material law or regulation respecting the business of the Company; (ii) Executive's conviction of, or plea of *nolo contendere* to, a felony or other crime involving moral turpitude; (iii) any act of dishonesty, fraud, or misrepresentation in relation to Executive's duties to the Company which act is materially and demonstrably injurious to the Company; (iv) Executive's willful and repeated failure to perform in any material respect Executive's duties hereunder after 15 days' notice and an opportunity to cure such failure and a reasonable opportunity to present to the Board Executive's position regarding any dispute relating to the existence of such failure (other than on account of disability); (v) Executive's failure to attempt in good faith to implement a clear and reasonable directive from the CEO or to comply with any of the Company's policies and procedures which failure is either material or occurs after written notice from the CEO; (vi) any act of gross misconduct which is materially and demonstrably injurious to the Company; or (vii) Executive's breach of fiduciary duty owed to the Company.

(g) Definition of Change in Control. For purposes of this Agreement, "***Change in Control***" shall mean (i) the acquisition by any person or group of affiliated or associated persons of more than 50% of the outstanding capital stock of the Company or voting securities representing more than 50% of the total voting power of outstanding securities of the Company; (ii) the consummation of a sale of all or substantially all of the assets of the Company to a third party; (iii) the consummation of any merger involving the Company in which, immediately after giving effect to such merger, less than a majority of the total voting power of outstanding stock of the surviving or resulting entity is then "beneficially owned" (within the meaning of Rule 13d-3 under the Securities Exchange Act of 1934, as amended) in the aggregate by the stockholders of the Company, as applicable, immediately prior to such merger. For the avoidance of doubt and notwithstanding anything herein to the contrary, in no event shall a transaction constitute a "Change in Control" if: (w) its sole purpose is to change the state of the Company's incorporation; (x) its sole purpose is to create a holding company that will be owned in substantially the same proportions by the persons who held the Company's securities immediately before such transaction; (y) it is effected primarily for the purpose of financing the Company with cash (as determined by the Board without regard to whether such transaction is effectuated by a merger, equity financing, or otherwise); or (z) it constitutes, or includes sales of shares in connection with, the initial public offering of the Company's capital stock. Notwithstanding the foregoing, a "Change in Control" must also constitute a "change in control event," as defined in Treasury Regulation §1.409A-3(i)(5).

(h) Definition of Change in Control Period. For purposes hereof, "***Change in Control Period***" shall mean the period of time commencing three months prior to a Change in Control and ending 12 months after such Change in Control.

(i) Definition of Covered Termination. For purposes hereof, "***Covered Termination***" shall mean the termination of Executive's employment by the Company without Cause or by Executive for Good Reason, and shall not include a termination due to Executive's death or disability.

(j) Definition of Good Reason. For purposes hereof, "***Good Reason***" shall mean any one of the following: (i) the material reduction of Executive's base salary or target annual performance bonus, (ii) the assignment to Executive of any duties materially and negatively inconsistent in any respect of Executive's position (including status, offices, titles and reporting requirements), authority, duties or responsibilities, or any other action by the Company which results in a material diminution in such position, authority, duties or responsibilities (including without limitation a requirement to report to any person or entity other than the CEO); or (iii) the Company's material breach of this Agreement, *provided*, that, in each case, Executive will not be deemed to have Good Reason unless (1) Executive first provides the Company with written notice of the condition giving rise to Good Reason within 30 days of its initial occurrence, (2) the Company or the successor company fails to cure such condition within 30 days after receiving such written notice (the "***Cure Period***"), and (3) Executive's resignation based on such Good Reason is effective within 30 days after the expiration of the Cure Period.

7. Assignment and Successors. The Company shall assign its rights and obligations under this Agreement to any successor to all or substantially all of the business or the assets of the Company (by merger or otherwise). This Agreement shall be binding upon and inure to the benefit of the Company, Executive, and their respective successors, assigns, personnel, and legal representatives, executors, administrators, heirs, distributees, devisees, and legatees, as applicable. None of Executive's rights or obligations may be assigned or transferred by Executive, other than Executive's rights to payments hereunder, which may be transferred only by will, operation of law, or as otherwise provided herein.

8. Miscellaneous Provisions.

(a) Confidentiality Agreement. Executive hereby affirms Executive's obligations under that certain Proprietary Information and Inventions Assignment Agreement by and between Executive and the Company dated as of February 10, 2018 (the "***Confidentiality Agreement***"). The Confidentiality Agreement shall survive the termination of this Agreement and Executive's employment with the Company for the applicable period(s) set forth therein. Notwithstanding the foregoing, in the event of any conflict between the terms of the Confidentiality Agreement and the terms of this Agreement, the terms of this Agreement shall prevail.

(b) Non-Solicitation of Employees. For a period of one year following Executive's Date of Termination, Executive shall not, either directly or indirectly (i) solicit for employment by any individual, corporation, firm, or other business, any employees, consultants, independent contractors, or other service providers of the Company or any of its affiliates, or (ii) solicit any employee or consultant of the Company or any of its affiliates to leave the employment or consulting of or cease providing services to the Company or any of its affiliates; *provided*, *however*, that the foregoing clauses (i) and (ii) shall not apply to a general advertisement or solicitation (or any hiring pursuant to such advertisement or solicitation) that is not specifically targeted to such employees or consultants.

(c) Governing Law. This Agreement shall be governed, construed, interpreted, and enforced in accordance with its express terms, and otherwise in accordance with the substantive laws of the State of California, without giving effect to any principles of conflicts of law, whether of the State of California or any other jurisdiction, and where applicable, the laws of the United States, that would result in the application of the laws of any other jurisdiction.

(d) Validity. The invalidity or unenforceability of any provision or provisions of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement, which shall remain in full force and effect.

(e) Counterparts. This Agreement may be executed in several counterparts, each of which shall be deemed to be an original, but all of which together will constitute one and the same Agreement. Signatures delivered by facsimile shall be deemed effective for all purposes.

(f) Entire Agreement. The terms of this Agreement, together with the Confidentiality Agreement, are intended by the Parties to be the final expression of their agreement with respect to the employment of Executive by the Company and supersede all prior understandings and agreements, whether written or oral, regarding Executive's service to the Company, including without limitation, the Offer Letter. The Parties further intend that this Agreement, together with the Confidentiality Agreement, shall constitute the complete and exclusive statement of their terms and that no extrinsic evidence whatsoever may be introduced in any judicial, administrative, or other legal proceeding to vary the terms of this Agreement or the Confidentiality Agreement. Notwithstanding the foregoing, in the event of any conflict between the terms of the Confidentiality Agreement and the terms of this Agreement, the terms of this Agreement shall prevail.

(g) Amendments; Waivers. This Agreement may not be modified, amended, or terminated except by an instrument in writing signed by Executive and a duly authorized representative of the Company. By an instrument in writing similarly executed, Executive or a duly authorized officer of the Company, as applicable, may waive compliance by the other Party with any specifically identified provision of this Agreement that such other Party was or is obligated to comply with or perform; *provided*, *however*, that such waiver shall not operate as a waiver of, or estoppel with respect to, any other or subsequent failure. No failure to exercise and no delay in exercising any right, remedy, or power hereunder shall preclude any other or further exercise of any other right, remedy, or power provided herein or by law or in equity.

(h) Dispute Resolution. To ensure the timely and economical resolution of disputes that arise in connection with this Agreement, Executive and the Company agree that any and all controversies, claims and disputes arising out of or relating to this Agreement, including without limitation any alleged violation of its terms, shall be resolved be resolved solely and exclusively by final and binding arbitration held in Alameda County, California through JAMS in conformity with California law and the then-existing JAMS employment arbitration rules, which can be found at https://www.jamsadr.com/rules-employment-arbitration/. The arbitrator shall: (a) provide adequate discovery for the resolution of the dispute; and (b) issue a written arbitration decision, to include the arbitrator's essential findings and conclusions and a statement of the award. The arbitrator shall award the prevailing Party attorneys' fees and expert fees, if any. Notwithstanding the foregoing, it is acknowledged that it will be impossible to measure in money the damages that would be suffered if the Parties fail to comply with any of the obligations imposed on them under Section 8(a), and that in the event of any such failure, an aggrieved person will be irreparably damaged and will not have an adequate remedy at law. Any such person shall,

therefore, be entitled to injunctive relief, including specific performance, to enforce such obligations, and if any action shall be brought in equity to enforce any of the provisions of Section 8(a), none of the Parties shall raise the defense that there is an adequate remedy at law. Executive and the Company understand that by agreement to arbitrate any claim pursuant to this Section 8(h), they will not have the right to have any claim decided by a jury or a court, but shall instead have any claim decided through arbitration. Executive and the Company waive any constitutional or other right to bring claims covered by this Agreement other than in their individual capacities. Except as may be prohibited by applicable law, the foregoing waiver includes the ability to assert claims as a plaintiff or class member in any purported class or representative proceeding.

(i) Enforcement. If any provision of this Agreement is held to be illegal, invalid, or unenforceable under present or future laws, such provision shall be fully severable; this Agreement shall be construed and enforced as if such illegal, invalid, or unenforceable provision had never comprised a portion of this Agreement; and the remaining provisions of this Agreement shall remain in full force and effect and shall not be affected by the illegal, invalid, or unenforceable provision or by its severance from this Agreement. Furthermore, in lieu of such illegal, invalid, or unenforceable provision there shall be added automatically as part of this Agreement a provision as similar in terms to such illegal, invalid, or unenforceable provision as may be possible and be legal, valid, and enforceable.

(j) Withholding. The Company shall be entitled to withhold from any amounts payable under this Agreement any federal, state, local, or foreign withholding or other taxes or charges which the Company is required to withhold. The Company shall be entitled to rely on an opinion of counsel if any questions as to the amount or requirement of withholding shall arise.

(k) Whistleblower Protections and Trade Secrets. Notwithstanding anything to the contrary contained herein, nothing in this Agreement prohibits Executive from reporting possible violations of federal law or regulation to any United States governmental agency or entity in accordance with the provisions of and rules promulgated under Section 21F of the Securities Exchange Act of 1934 or Section 806 of the Sarbanes-Oxley Act of 2002, or any other whistleblower protection provisions of state or federal law or regulation (including the right to receive an award for information provided to any such government agencies). Furthermore, in accordance with 18 U.S.C. § 1833, notwithstanding anything to the contrary in this Agreement: (i) Executive shall not be in breach of this Agreement, and shall not be held criminally or civilly liable under any federal or state trade secret law (x) for the disclosure of a trade secret that is made in confidence to a federal, state, or local government official or to an attorney solely for the purpose of reporting or investigating a suspected violation of law, or (y) for the disclosure of a trade secret that is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal; and (ii) if Executive files a lawsuit for retaliation by the Company for reporting a suspected violation of law, Executive may disclose the trade secret to Executive's attorney, and may use the trade secret information in the court proceeding, if Executive files any document containing the trade secret under seal, and does not disclose the trade secret, except pursuant to court order.

9. Prior Employment. Executive represents and warrants that Executive's acceptance of employment with the Company has not breached, and the performance of Executive's duties hereunder will not breach, any duty owed by Executive to any prior employer or other person. Executive further represents and warrants to the Company that (a) the performance of Executive's obligations hereunder will not violate any agreement between Executive and any other person, firm, organization, or other entity; (b) Executive is not bound by the terms of any agreement with any previous employer or other party to refrain from competing, directly or indirectly, with the business of such previous employer or other party that would be violated by Executive entering into this Agreement and/or providing services to the Company pursuant to the terms of this Agreement; and (c) Executive's performance of Executive's duties under this Agreement will not require Executive to, and Executive shall not, rely on in the performance of Executive's duties or disclose to the Company or any other person or entity or induce the Company in any way to use or rely on any trade secret or other confidential or proprietary information or material belonging to any previous employer of Executive.

10. Golden Parachute Excise Tax.

(a) Best Pay. Any provision of this Agreement to the contrary notwithstanding, if any payment or benefit Executive would receive from the Company pursuant to this Agreement or otherwise ("***Payment***") would (i) constitute a "parachute payment" within the meaning of Section 280G of the Code and (ii) but for this sentence, be subject to the excise tax imposed by Section 4999 of the Code (the "***Excise Tax***"), then such Payment will be equal to the Reduced Amount (as defined below). The "***Reduced Amount***" will be either (A) the largest portion of the Payment that would result in no portion of the Payment (after reduction) being subject to the Excise Tax or (B) the entire Payment, whichever amount after taking into account all applicable federal, state, and local employment taxes, income taxes, and the Excise Tax (all computed at the highest applicable marginal rate, net of the maximum reduction in federal income taxes which could be obtained from a deduction of such state and local taxes), results in Executive' s receipt, on an after-tax basis, of the greater economic benefit notwithstanding that all or some portion of the Payment may be subject to the Excise Tax. If a reduction in a Payment is required pursuant to the preceding sentence and the Reduced Amount is determined pursuant to clause (A) of the preceding sentence, the reduction shall occur in the manner (the "***Reduction Method***") that results in the greatest economic benefit for Executive. If more than one method of reduction will result in the same economic benefit, the items so reduced will be reduced pro rata (the "***Pro Rata Reduction Method***"). Notwithstanding the foregoing, if the Reduction Method or the Pro Rata Reduction Method would result in any portion of the Payment being subject to taxes pursuant to Section 409A (as defined below) that would not otherwise be subject to taxes pursuant to Section 409A, then the Reduction Method and/or the Pro Rata Reduction Method, as the case may be, shall be modified so as to avoid the imposition of taxes pursuant to Section 409A as follows: (1) as a first priority, the modification shall preserve to the greatest extent possible, the greatest economic benefit for Executive as determined on an after-tax basis; (2) as a second priority, Payments that are contingent on future events (*e.g.*, being terminated without cause), shall be reduced (or eliminated) before Payments that are not contingent on future events; and (3) as a third priority, Payments that are "deferred compensation" within the meaning of Section 409A shall be reduced (or eliminated) before Payments that are not deferred compensation within the meaning of Section 409A.

(b) Accounting Firm. The accounting firm engaged by the Company for general tax purposes as of the day prior to the Change in Control will perform the calculations set forth in Section 10(a). If the firm so engaged by the Company is serving as the accountant or auditor for the acquiring company, the Company will appoint a nationally recognized accounting

firm to make the determinations required hereunder. The Company will bear all expenses with respect to the determinations by such firm required to be made hereunder. The accounting firm engaged to make the determinations hereunder will provide its calculations, together with detailed supporting documentation, to the Company within 30 days before the consummation of a Change in Control (if requested at that time by the Company) or such other time as requested by the Company. If the accounting firm determines that no Excise Tax is payable with respect to a Payment, either before or after the application of the Reduced Amount, it will furnish the Company with documentation reasonably acceptable to the Company that no Excise Tax will be imposed with respect to such Payment. Any good faith determinations of the accounting firm made hereunder will be final, binding and conclusive upon the Company and Executive.

11. Section 409A.

(a) General. The intent of the Parties is that the payments and benefits under this Agreement comply with or be exempt from Section 409A of the Code and the Department of Treasury regulations and other interpretive guidance issued thereunder, including without limitation any such regulations or other guidance that may be issued after the Effective Date, ("***Section 409A***") and, accordingly, to the maximum extent permitted, this Agreement shall be interpreted to be in compliance therewith. If Executive notifies the Company that Executive has received advice of tax counsel of a national reputation with expertise in Section 409A that any provision of this Agreement would cause Executive to incur any additional tax or interest under Section 409A (with specificity as to the reason therefor) or the Company independently makes such determination, the Company and Executive shall take commercially reasonable efforts to reform such provision to try to comply with or be exempt from Section 409A through good faith modifications to the minimum extent reasonably appropriate to conform with Section 409A, *provided* that any such modifications shall not increase the cost or liability to the Company. To the extent that any provision hereof is modified in order to comply with or be exempt from Section 409A, such modification shall be made in good faith and shall, to the maximum extent reasonably possible, maintain the original intent and economic benefit to Executive and the Company of the applicable provision without violating the provisions of Section 409A.

(b) Separation from Service. Notwithstanding any provision to the contrary in this Agreement: (i) no amount that constitutes "deferred compensation" under Section 409A shall be payable pursuant to Section 6 unless the termination of Executive's employment constitutes a "separation from service" within the meaning of Section 1.409A-1(h) of the Department of Treasury Regulations ("***Separation from Service***"); (ii) for purposes of Section 409A, Executive's right to receive installment payments shall be treated as a right to receive a series of separate and distinct payments; and (iii) to the extent that any reimbursement of expenses or in-kind benefits constitutes "deferred compensation" under Section 409A, such reimbursement or benefit shall be provided no later than December 31st of the year following the year in which the expense was incurred. The amount of expenses reimbursed in one year shall not affect the amount eligible for reimbursement in any subsequent year. The amount of any in-kind benefits provided in one year shall not affect the amount of in-kind benefits provided in any other year.

(c) Specified Employee. Notwithstanding anything in this Agreement to the contrary, if Executive is deemed by the Company at the time of Executive's Separation from Service to be a "specified employee" for purposes of Section 409A, to the extent delayed commencement of any portion of the benefits to which Executive is entitled under this Agreement is required in order to avoid a prohibited distribution under Section 409A, such portion of Executive's benefits shall not be provided to Executive prior to the earlier of (i) the expiration of the six-month period measured from the date of Executive's Separation from Service with the Company or (ii) the date of Executive's death. Upon the first business day following the expiration of the applicable Section 409A period, all payments deferred pursuant to the preceding sentence shall be paid in a lump sum to Executive (or Executive's estate or beneficiaries), and any remaining payments due to Executive under this Agreement shall be paid as otherwise provided herein.

(d) Release. Notwithstanding anything to the contrary in this Agreement, to the extent that any payments due under this Agreement as a result of Executive's termination of employment are subject to Executive's execution and delivery of a Release, (i) the Company shall deliver the Release to Executive within ten business days following Executive's Date of Termination, and the Company's failure to deliver a Release prior to the expiration of such ten business day period shall constitute a waiver of any requirement to execute a Release, (ii) if Executive fails to execute the Release on or prior to the Release Expiration Date (as defined below) or timely revokes Executive's acceptance of the Release thereafter, Executive shall not be entitled to any payments or benefits otherwise conditioned on the Release, and (iii) in any case where Executive's Date of Termination and the Release Expiration Date fall in two separate taxable years, any payments required to be made to Executive that are conditioned on the Release and are treated as nonqualified deferred compensation for purposes of Section 409A shall be made in the later taxable year. For purposes of this Section 11(d), "***Release Expiration Date***" shall mean the date that is 21 days following the date upon which the Company timely delivers the Release to Executive, or, in the event that Executive's termination of employment is "in connection with an exit incentive or other employment termination program" (as such phrase is defined in the Age Discrimination in Employment Act of 1967), the date that is 45 days following such delivery date. To the extent that any payments of nonqualified deferred compensation (within the meaning of Section 409A) due under this Agreement as a result of Executive's termination of employment are delayed pursuant to this Section 11(d), such amounts shall be paid in a lump sum on the first payroll date following the date that Executive executes and does not revoke the Release (and the applicable revocation period has expired) or, in the case of any payments subject to Section 11(d)(iii), on the first payroll period to occur in the subsequent taxable year, if later.

12. Employee Acknowledgement. Executive acknowledges that Executive has read and understands this Agreement, is fully aware of its legal effect, has not acted in reliance upon any representations or promises made by the Company other than those contained in writing herein, and has entered into this Agreement freely based on Executive's own judgment.

[*Signature Page Follows*]

The Parties have executed this Agreement as of the Agreement Date.

GRITSTONE ONCOLOGY, INC.

By: /s/ Andrew Allen
Name: Andrew Allen
Title: President and Chief Executive Officer

EXECUTIVE

By: /s/ Jayant Aphale
Name: Jayant Aphale

Address:

GRITSTONE ONCOLOGY, INC.

EMPLOYMENT AGREEMENT

This Employment Agreement (the "***Agreement***"), entered into as of September 16, 2018 (the "***Agreement Date***"), is between Gritstone Oncology, Inc., a Delaware corporation (the "***Company***") and Erin Jones ("***Executive***" and, together with the Company, the "***Parties***"). This Agreement will become effective as a binding contract as of the Agreement Date, but the operative provisions of this Agreement will only become effective as of immediately prior to the time the Company's registration statement relating to the initial public offering of the Company's common stock becomes effective (the "***Effective Date***"). This Agreement supersedes in its entirety that certain offer letter between Executive and the Company dated as of March 23, 2016 ("***Offer Letter***").

WHEREAS, the Company desires to assure itself of the continued services of Executive by engaging Executive to perform services as an employee of the Company under the terms hereof;

WHEREAS, Executive desires to provide continued services to the Company on the terms herein provided; and

WHEREAS, the Parties desire to execute this Agreement to supersede the Offer Letter in its entirety and reflect certain changes to Executive's employment with the Company effective as of the Effective Date.

NOW, THEREFORE, in consideration of the foregoing, and for other good and valuable consideration, including the respective covenants and agreements set forth below, the receipt and sufficiency of which are hereby acknowledged, the Parties hereto agree as follows:

1. Employment.

(a) General. The Company shall employ Executive upon the terms and conditions provided herein effective as of the Effective Date.

(b) Position and Duties. Effective on the Effective Date, Executive: (i) shall continue to serve as the Company's Executive Vice President and Global Head of Regulatory Affairs and Quality Assurance, with responsibilities, duties, and authority usual and customary for such position, subject to direction by the Chief Executive Officer of the Company (the "***CEO***"); (ii) shall continue to report directly to the CEO; and (iii) agrees promptly and faithfully to comply with all present and future policies, requirements, rules and regulations, and reasonable directions and requests, of the Company in connection with the Company's business. At the Company's request, Executive shall serve the Company and/or its subsidiaries and affiliates in such other capacities in addition to the foregoing as the Company shall designate, provided that such additional capacities are consistent with Executive's position as the Company's Executive Vice President and Global Head of Regulatory Affairs and Quality Assurance. In the event that Executive serves in any one or more of such additional capacities, Executive's compensation shall not automatically be increased on account of such additional service.

(c) Performance of Executive's Duties. During Executive's employment with the Company, and except for periods of illness, vacation, disability, or reasonable leaves of absence or as discussed in Section 1(e), Executive shall devote Executive's full time and attention to the business and affairs of the Company pursuant to the general direction of the CEO. The rights of Executive under this Agreement shall not be affected by any change in the title, duties, or capacity of Executive during Executive's employment with the Company.

(d) Principal Office. Executive will work principally at the Company's facility located in Emeryville, California.

(e) Exclusivity. Except with the prior written approval of the CEO (which the CEO may grant or withhold in his or her sole and absolute discretion), Executive shall devote substantially all of Executive's working time, attention, and energies to the business of the Company, except during any paid vacation or other excused absence periods. Nothing in this section prevents Executive from engaging in additional activities in connection with personal investments and community affairs. Executive may also serve as a member of the board of directors or board of advisors of another organization provided (i) such organization is not a competitor of the Company; (ii) Executive receives prior written approval from the Company's CEO; and (iii) such activities do not individually or in the aggregate interfere with the performance of Executive's duties under this Agreement, violate the Company's standards of conduct then in effect, or raise a conflict under the Company's conflict of interest policies.

2. Term. The period of Executive's employment under this Agreement shall commence on the Effective Date and shall continue until Executive's employment with the Company is terminated pursuant to Section 5. The phrase "***Term***" as used in this Agreement shall refer to the entire period of employment of Executive by the Company.

3. Compensation and Related Matters.

(a) Annual Base Salary. During the Term, Executive shall receive a base salary at the rate of $330,000 per year (as may be increased from time to time, the "***Annual Base Salary***"), subject to withholdings and deductions, which shall be paid to Executive in accordance with the customary payroll practices and procedures of the Company. Such Annual Base Salary shall be reviewed by the CEO, and, as applicable, the Board of Directors of the Company (the "***Board***") and/or the Compensation Committee of the Board, not less than annually.

(b) Annual Bonus. Executive shall be eligible to receive a discretionary annual bonus based on Executive's achievement of performance objectives as mutually agreed between Executive and the CEO, such bonus to be targeted at 35% of Executive's Annual Base Salary (the "***Annual Bonus***"). Any Annual Bonus approved by the Board, the Compensation Committee of the Board and/or the CEO shall be paid at the same time annual bonuses are paid to other executives of the Company generally, subject to Executive's continuous employment through the date of approval.

(c) Benefits. Executive shall be entitled to participate in such employee and executive benefit plans and programs as the Company may from time to time offer to provide to its executives, subject to the terms and conditions of such plans. Notwithstanding the foregoing, nothing herein is intended, or shall be construed, to require the Company to institute or continue any, or any particular, plan or benefit.

(d) Business Expenses. The Company shall reimburse Executive for all reasonable, documented, out-of-pocket travel and other business expenses incurred by Executive in the performance of Executive's duties to the Company in accordance with the Company's applicable expense reimbursement policies and procedures as are in effect from time to time.

(e) Vacation. Executive will be entitled to paid vacation in accordance with the Company's vacation policy.

4. Equity Awards. Executive shall be eligible for future grants of stock options and equity awards as may be determined by the Company, in its sole discretion.

5. Termination.

(a) At-Will Employment. The Company and Executive acknowledge that Executive's employment is and shall continue to be at-will, as defined under applicable law. This means that it is not for any specified period of time and can be terminated by Executive or by the Company at any time, with or without advance notice, and for any or no particular reason or cause. It also means that Executive's job duties, title, and responsibility and reporting level, work schedule, compensation, and benefits, as well as the Company's personnel policies and procedures, may be changed with prospective effect, with or without notice, at any time in the sole discretion of the Company (subject to any ramification such changes may have under Section 6 of this Agreement). This "at-will" nature of Executive's employment shall remain unchanged during Executive's tenure as an employee and may not be changed, except in an express writing signed by Executive and a duly-authorized officer of the Company. If Executive's employment terminates for any lawful reason, Executive shall not be entitled to any payments, benefits, damages, award, or compensation other than as provided in this Agreement.

(b) Notice of Termination. During the Term, any termination of Executive's employment by the Company or by Executive (other than by reason of death) shall be communicated by written notice (a "***Notice of Termination***") from one Party hereto to the other Party hereto (i) indicating the specific termination provision in this Agreement relied upon, if any, (ii) setting forth in reasonable detail the facts and circumstances claimed to provide a basis for termination of Executive's employment under the provision so indicated, and (iii) specifying the Date of Termination (as defined below). The failure by the Company to set forth in the Notice of Termination all of the facts and circumstances which contribute to a showing of Cause (as defined below) shall not waive any right of the Company hereunder or preclude the Company from asserting such fact or circumstance in enforcing their rights hereunder.

(c) Date of Termination. For purposes of this Agreement, "***Date of Termination***" shall mean the date of the termination of Executive's employment with the Company specified in a Notice of Termination.

(d) Deemed Resignation. Upon termination of Executive's employment for any reason, Executive shall be deemed to have resigned from all offices and board memberships, if any, then held with the Company or any of its affiliates, and, at the Company's request, Executive shall execute such documents as are necessary or desirable to effectuate such resignations.

6. Consequences of Termination.

(a) Payments of Accrued Obligations upon all Terminations of Employment. Upon a termination of Executive's employment for any reason, Executive (or Executive's estate or legal representative, as applicable) shall be entitled to receive, within 30 days after Executive's Date of Termination (or such earlier date as may be required by applicable law): (i) any portion of Executive's Annual Base Salary earned through Executive's Date of Termination not theretofore paid, (ii) any expenses owed to Executive under Section 3, (iii) any accrued but unused paid time-off owed to Executive, (iv) any Annual Bonus approved by the Board, Compensation Committee of the Board and/or the CEO on or prior to the Date of Termination but unpaid as of the Date of Termination, and (v) any amount arising from Executive's participation in, or benefits under, any employee benefit plans, programs, or arrangements under Section 3, which amounts shall be payable in accordance with the terms and conditions of such employee benefit plans, programs, or arrangements. Except as otherwise set forth in Sections 6(b) and (c), the payments and benefits described in this Section 6(a) shall be the only payments and benefits payable in the event of Executive's termination of employment for any reason.

(b) Severance Payments upon Covered Termination Outside a Change in Control Period. If, during the Term, Executive experiences a Covered Termination outside a Change in Control Period (each as defined below), then in addition to the payments and benefits described in Section 6(a), the Company shall, subject to Executive's delivery to the Company of a waiver and release of claims agreement in a form approved by the Company (a "***Release***") that becomes effective and irrevocable in accordance with Section 11(d), provide Executive with the following:

(i) The Company shall pay to Executive an amount equal to the sum of (i) Executive's Annual Base Salary multiplied by 0.75 and (ii) Executive's target Annual Bonus. Such amount will be subject to applicable withholdings and payable in a single lump sum cash payment on the first regular payroll date following the date the Release becomes effective and irrevocable in accordance with Section 11(d).

(ii) During the period commencing on the Date of Termination and ending on the nine-month anniversary thereof or, if earlier, the date on which Executive becomes eligible for comparable replacement coverage under a subsequent employer's group health plan (in any case, the "***Non-CIC COBRA Period***"), subject to Executive's valid election to continue healthcare coverage under Section 4980B of the Internal Revenue Code of 1986, as amended (the "***Code***") and the regulations thereunder, the Company shall, in its sole discretion, either (A) continue to provide to Executive and Executive's dependents, at the Company's sole expense, or (B) reimburse Executive and Executive's dependents for coverage under its group health plan (if any) at the same levels in effect on the Date of Termination; *provided, however*, that if (1) any plan pursuant to which such benefits are provided is not, or ceases prior to the expiration of the continuation coverage period to be, exempt from the application of Section 409A under Treasury Regulation Section 1.409A-1(a)(5), (2) the Company is otherwise unable to continue to cover

Executive or Executive's dependents under its group health plans, or (3) the Company cannot provide the benefit without violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), then, in any such case, an amount equal to each remaining Company subsidy shall thereafter be paid to Executive in substantially equal monthly installments over the Non-CIC COBRA Period (or remaining portion thereof).

(c) Severance Payments upon Covered Termination During a Change in Control Period. If, during the Term, Executive experiences a Covered Termination during a Change in Control Period, then, in addition to the payments and benefits described in Section 6(a), the Company shall, subject to Executive's delivery to the Company of a Release that becomes effective and irrevocable in accordance with Section 11(d), provide Executive with the following:

(i) The Company shall pay to Executive an amount equal to the sum of (i) Executive's Annual Base Salary and (ii) Executive's target Annual Bonus. Such amount will be subject to applicable withholdings and payable in a single lump sum cash payment on the first regular payroll date following the date the Release becomes effective and irrevocable in accordance with Section 11(d).

(ii) During the period commencing on the Date of Termination and ending on the 12-month anniversary thereof or, if earlier, the date on which Executive becomes eligible for comparable replacement coverage under a subsequent employer's group health plan (in any case, the "***CIC COBRA Period***"), subject to Executive's valid election to continue healthcare coverage under Section 4980B of the Code and the regulations thereunder, the Company shall, in its sole discretion, either (A) continue to provide to Executive and Executive's dependents, at the Company's sole expense, or (B) reimburse Executive and Executive's dependents for coverage under its group health plan (if any) at the same levels in effect on the Date of Termination; *provided, however*, that if (1) any plan pursuant to which such benefits are provided is not, or ceases prior to the expiration of the continuation coverage period to be, exempt from the application of Section 409A under Treasury Regulation Section 1.409A-1(a)(5), (2) the Company is otherwise unable to continue to cover Executive or Executive's dependents under its group health plans, or (3) the Company cannot provide the benefit without violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), then, in any such case, an amount equal to each remaining Company subsidy shall thereafter be paid to Executive in substantially equal monthly installments over the CIC COBRA Period (or remaining portion thereof).

(iii) Cause any unvested equity awards, including any stock options, restricted stock awards and any such awards subject to performance-based vesting, held by Executive as of the Date of Termination, to become fully vested and, if applicable, exercisable, and cause all restrictions and rights of repurchase on such awards to lapse with respect to all of the shares of the Company's Common Stock subject thereto.

(d) No Other Severance. The provisions of this Section 6 shall supersede in their entirety any severance payment provisions in any severance plan, policy, program, or other arrangement maintained by the Company except as otherwise approved by the Board.

(e) No Requirement to Mitigate; Survival. Executive shall not be required to mitigate the amount of any payment provided for under this Agreement by seeking other employment or in any other manner. Notwithstanding anything to the contrary in this Agreement, the termination of Executive's employment shall not impair the rights or obligations of any Party.

(f) Definition of Cause. For purposes hereof, "***Cause***" shall mean any one of the following: (i) Executive's material violation of any applicable material law or regulation respecting the business of the Company; (ii) Executive's conviction of, or plea of *nolo contendere* to, a felony or other crime involving moral turpitude; (iii) any act of dishonesty, fraud, or misrepresentation in relation to Executive's duties to the Company which act is materially and demonstrably injurious to the Company; (iv) Executive's willful and repeated failure to perform in any material respect Executive's duties hereunder after 15 days' notice and an opportunity to cure such failure and a reasonable opportunity to present to the Board Executive's position regarding any dispute relating to the existence of such failure (other than on account of disability); (v) Executive's failure to attempt in good faith to implement a clear and reasonable directive from the CEO or to comply with any of the Company's policies and procedures which failure is either material or occurs after written notice from the CEO; (vi) any act of gross misconduct which is materially and demonstrably injurious to the Company; or (vii) Executive's breach of fiduciary duty owed to the Company.

(g) Definition of Change in Control. For purposes of this Agreement, "***Change in Control***" shall mean (i) the acquisition by any person or group of affiliated or associated persons of more than 50% of the outstanding capital stock of the Company or voting securities representing more than 50% of the total voting power of outstanding securities of the Company; (ii) the consummation of a sale of all or substantially all of the assets of the Company to a third party; (iii) the consummation of any merger involving the Company in which, immediately after giving effect to such merger, less than a majority of the total voting power of outstanding stock of the surviving or resulting entity is then "beneficially owned" (within the meaning of Rule 13d-3 under the Securities Exchange Act of 1934, as amended) in the aggregate by the stockholders of the Company, as applicable, immediately prior to such merger. For the avoidance of doubt and notwithstanding anything herein to the contrary, in no event shall a transaction constitute a "Change in Control" if: (w) its sole purpose is to change the state of the Company's incorporation; (x) its sole purpose is to create a holding company that will be owned in substantially the same proportions by the persons who held the Company's securities immediately before such transaction; (y) it is effected primarily for the purpose of financing the Company with cash (as determined by the Board without regard to whether such transaction is effectuated by a merger, equity financing, or otherwise); or (z) it constitutes, or includes sales of shares in connection with, the initial public offering of the Company's capital stock. Notwithstanding the foregoing, a "Change in Control" must also constitute a "change in control event," as defined in Treasury Regulation §1.409A-3(i)(5).

(h) Definition of Change in Control Period. For purposes hereof, "***Change in Control Period***" shall mean the period of time commencing three months prior to a Change in Control and ending 12 months after such Change in Control.

(i) Definition of Covered Termination. For purposes hereof, "***Covered Termination***" shall mean the termination of Executive's employment by the Company without Cause or by Executive for Good Reason, and shall not include a termination due to Executive's death or disability.

(j) Definition of Good Reason. For purposes hereof, "***Good Reason***" shall mean any one of the following: (i) the material reduction of Executive's base salary or target annual performance bonus, (ii) the assignment to Executive of any duties materially and negatively inconsistent in any respect of Executive's position (including status, offices, titles and reporting requirements), authority, duties or responsibilities, or any other action by the Company which results in a material diminution in such position, authority, duties or responsibilities (including without limitation a requirement to report to any person or entity other than the CEO); or (iii) the Company's material breach of this Agreement, *provided*, that, in each case, Executive will not be deemed to have Good Reason unless (1) Executive first provides the Company with written notice of the condition giving rise to Good Reason within 30 days of its initial occurrence, (2) the Company or the successor company fails to cure such condition within 30 days after receiving such written notice (the "***Cure Period***"), and (3) Executive's resignation based on such Good Reason is effective within 30 days after the expiration of the Cure Period.

7. Assignment and Successors. The Company shall assign its rights and obligations under this Agreement to any successor to all or substantially all of the business or the assets of the Company (by merger or otherwise). This Agreement shall be binding upon and inure to the benefit of the Company, Executive, and their respective successors, assigns, personnel, and legal representatives, executors, administrators, heirs, distributees, devisees, and legatees, as applicable. None of Executive's rights or obligations may be assigned or transferred by Executive, other than Executive's rights to payments hereunder, which may be transferred only by will, operation of law, or as otherwise provided herein.

8. Miscellaneous Provisions.

(a) Confidentiality Agreement. Executive hereby affirms Executive's obligations under that certain Proprietary Information and Inventions Assignment Agreement by and between Executive and the Company dated as of March 24, 2016 (the "***Confidentiality Agreement***"). The Confidentiality Agreement shall survive the termination of this Agreement and Executive's employment with the Company for the applicable period(s) set forth therein. Notwithstanding the foregoing, in the event of any conflict between the terms of the Confidentiality Agreement and the terms of this Agreement, the terms of this Agreement shall prevail.

(b) Non-Solicitation of Employees. For a period of one year following Executive's Date of Termination, Executive shall not, either directly or indirectly (i) solicit for employment by any individual, corporation, firm, or other business, any employees, consultants, independent contractors, or other service providers of the Company or any of its affiliates, or (ii) solicit any employee or consultant of the Company or any of its affiliates to leave the employment or consulting of or cease providing services to the Company or any of its affiliates; *provided*, *however*, that the foregoing clauses (i) and (ii) shall not apply to a general advertisement or solicitation (or any hiring pursuant to such advertisement or solicitation) that is not specifically targeted to such employees or consultants.

(c) Governing Law. This Agreement shall be governed, construed, interpreted, and enforced in accordance with its express terms, and otherwise in accordance with the substantive laws of the State of California, without giving effect to any principles of conflicts of law, whether of the State of California or any other jurisdiction, and where applicable, the laws of the United States, that would result in the application of the laws of any other jurisdiction.

(d) Validity. The invalidity or unenforceability of any provision or provisions of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement, which shall remain in full force and effect.

(e) Counterparts. This Agreement may be executed in several counterparts, each of which shall be deemed to be an original, but all of which together will constitute one and the same Agreement. Signatures delivered by facsimile shall be deemed effective for all purposes.

(f) Entire Agreement. The terms of this Agreement, together with the Confidentiality Agreement, are intended by the Parties to be the final expression of their agreement with respect to the employment of Executive by the Company and supersede all prior understandings and agreements, whether written or oral, regarding Executive's service to the Company, including without limitation, the Offer Letter. The Parties further intend that this Agreement, together with the Confidentiality Agreement, shall constitute the complete and exclusive statement of their terms and that no extrinsic evidence whatsoever may be introduced in any judicial, administrative, or other legal proceeding to vary the terms of this Agreement or the Confidentiality Agreement. Notwithstanding the foregoing, in the event of any conflict between the terms of the Confidentiality Agreement and the terms of this Agreement, the terms of this Agreement shall prevail.

(g) Amendments; Waivers. This Agreement may not be modified, amended, or terminated except by an instrument in writing signed by Executive and a duly authorized representative of the Company. By an instrument in writing similarly executed, Executive or a duly authorized officer of the Company, as applicable, may waive compliance by the other Party with any specifically identified provision of this Agreement that such other Party was or is obligated to comply with or perform; *provided*, *however*, that such waiver shall not operate as a waiver of, or estoppel with respect to, any other or subsequent failure. No failure to exercise and no delay in exercising any right, remedy, or power hereunder shall preclude any other or further exercise of any other right, remedy, or power provided herein or by law or in equity.

(h) Dispute Resolution. To ensure the timely and economical resolution of disputes that arise in connection with this Agreement, Executive and the Company agree that any and all controversies, claims and disputes arising out of or relating to this Agreement, including without limitation any alleged violation of its terms, shall be resolved be resolved solely and exclusively by final and binding arbitration held in Alameda County, California through JAMS in conformity with California law and the then-existing JAMS employment arbitration rules, which can be found at https://www.jamsadr.com/rules-employment-arbitration/. The arbitrator shall: (a) provide adequate discovery for the resolution of the dispute; and (b) issue a written arbitration decision, to include the arbitrator's essential findings and conclusions and a statement of the award. The arbitrator shall award the prevailing Party attorneys' fees and expert fees, if any. Notwithstanding the foregoing, it is acknowledged that it will be impossible to measure in money

the damages that would be suffered if the Parties fail to comply with any of the obligations imposed on them under Section 8(a), and that in the event of any such failure, an aggrieved person will be irreparably damaged and will not have an adequate remedy at law. Any such person shall, therefore, be entitled to injunctive relief, including specific performance, to enforce such obligations, and if any action shall be brought in equity to enforce any of the provisions of Section 8(a), none of the Parties shall raise the defense that there is an adequate remedy at law. Executive and the Company understand that by agreement to arbitrate any claim pursuant to this Section 8(h), they will not have the right to have any claim decided by a jury or a court, but shall instead have any claim decided through arbitration. Executive and the Company waive any constitutional or other right to bring claims covered by this Agreement other than in their individual capacities. Except as may be prohibited by applicable law, the foregoing waiver includes the ability to assert claims as a plaintiff or class member in any purported class or representative proceeding.

(i) Enforcement. If any provision of this Agreement is held to be illegal, invalid, or unenforceable under present or future laws, such provision shall be fully severable; this Agreement shall be construed and enforced as if such illegal, invalid, or unenforceable provision had never comprised a portion of this Agreement; and the remaining provisions of this Agreement shall remain in full force and effect and shall not be affected by the illegal, invalid, or unenforceable provision or by its severance from this Agreement. Furthermore, in lieu of such illegal, invalid, or unenforceable provision there shall be added automatically as part of this Agreement a provision as similar in terms to such illegal, invalid, or unenforceable provision as may be possible and be legal, valid, and enforceable.

(j) Withholding. The Company shall be entitled to withhold from any amounts payable under this Agreement any federal, state, local, or foreign withholding or other taxes or charges which the Company is required to withhold. The Company shall be entitled to rely on an opinion of counsel if any questions as to the amount or requirement of withholding shall arise.

(k) Whistleblower Protections and Trade Secrets. Notwithstanding anything to the contrary contained herein, nothing in this Agreement prohibits Executive from reporting possible violations of federal law or regulation to any United States governmental agency or entity in accordance with the provisions of and rules promulgated under Section 21F of the Securities Exchange Act of 1934 or Section 806 of the Sarbanes-Oxley Act of 2002, or any other whistleblower protection provisions of state or federal law or regulation (including the right to receive an award for information provided to any such government agencies). Furthermore, in accordance with 18 U.S.C. § 1833, notwithstanding anything to the contrary in this Agreement: (i) Executive shall not be in breach of this Agreement, and shall not be held criminally or civilly liable under any federal or state trade secret law (x) for the disclosure of a trade secret that is made in confidence to a federal, state, or local government official or to an attorney solely for the purpose of reporting or investigating a suspected violation of law, or (y) for the disclosure of a trade secret that is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal; and (ii) if Executive files a lawsuit for retaliation by the Company for reporting a suspected violation of law, Executive may disclose the trade secret to Executive's attorney, and may use the trade secret information in the court proceeding, if Executive files any document containing the trade secret under seal, and does not disclose the trade secret, except pursuant to court order.

9. Prior Employment. Executive represents and warrants that Executive's acceptance of employment with the Company has not breached, and the performance of Executive's duties hereunder will not breach, any duty owed by Executive to any prior employer or other person. Executive further represents and warrants to the Company that (a) the performance of Executive's obligations hereunder will not violate any agreement between Executive and any other person, firm, organization, or other entity; (b) Executive is not bound by the terms of any agreement with any previous employer or other party to refrain from competing, directly or indirectly, with the business of such previous employer or other party that would be violated by Executive entering into this Agreement and/or providing services to the Company pursuant to the terms of this Agreement; and (c) Executive's performance of Executive's duties under this Agreement will not require Executive to, and Executive shall not, rely on in the performance of Executive's duties or disclose to the Company or any other person or entity or induce the Company in any way to use or rely on any trade secret or other confidential or proprietary information or material belonging to any previous employer of Executive.

10. Golden Parachute Excise Tax.

(a) Best Pay. Any provision of this Agreement to the contrary notwithstanding, if any payment or benefit Executive would receive from the Company pursuant to this Agreement or otherwise ("***Payment***") would (i) constitute a "parachute payment" within the meaning of Section 280G of the Code and (ii) but for this sentence, be subject to the excise tax imposed by Section 4999 of the Code (the "***Excise Tax***"), then such Payment will be equal to the Reduced Amount (as defined below). The "***Reduced Amount***" will be either (A) the largest portion of the Payment that would result in no portion of the Payment (after reduction) being subject to the Excise Tax or (B) the entire Payment, whichever amount after taking into account all applicable federal, state, and local employment taxes, income taxes, and the Excise Tax (all computed at the highest applicable marginal rate, net of the maximum reduction in federal income taxes which could be obtained from a deduction of such state and local taxes), results in Executive' s receipt, on an after-tax basis, of the greater economic benefit notwithstanding that all or some portion of the Payment may be subject to the Excise Tax. If a reduction in a Payment is required pursuant to the preceding sentence and the Reduced Amount is determined pursuant to clause (A) of the preceding sentence, the reduction shall occur in the manner (the "***Reduction Method***") that results in the greatest economic benefit for Executive. If more than one method of reduction will result in the same economic benefit, the items so reduced will be reduced pro rata (the "***Pro Rata Reduction Method***"). Notwithstanding the foregoing, if the Reduction Method or the Pro Rata Reduction Method would result in any portion of the Payment being subject to taxes pursuant to Section 409A (as defined below) that would not otherwise be subject to taxes pursuant to Section 409A, then the Reduction Method and/or the Pro Rata Reduction Method, as the case may be, shall be modified so as to avoid the imposition of taxes pursuant to Section 409A as follows: (1) as a first priority, the modification shall preserve to the greatest extent possible, the greatest economic benefit for Executive as determined on an after-tax basis; (2) as a second priority, Payments that are contingent on future events (*e.g.*, being terminated without cause), shall be reduced (or eliminated) before Payments that are not contingent on future events; and (3) as a third priority, Payments that are "deferred compensation" within the meaning of Section 409A shall be reduced (or eliminated) before Payments that are not deferred compensation within the meaning of Section 409A.

(b) Accounting Firm. The accounting firm engaged by the Company for general tax purposes as of the day prior to the Change in Control will perform the calculations set forth in Section 10(a). If the firm so engaged by the Company is serving as the accountant or auditor for the acquiring company, the Company will appoint a nationally recognized accounting firm to make the determinations required hereunder. The Company will bear all expenses with respect to the determinations by such firm required to be made hereunder. The accounting firm engaged to make the determinations hereunder will provide its calculations, together with detailed supporting documentation, to the Company within 30 days before the consummation of a Change in Control (if requested at that time by the Company) or such other time as requested by the Company. If the accounting firm determines that no Excise Tax is payable with respect to a Payment, either before or after the application of the Reduced Amount, it will furnish the Company with documentation reasonably acceptable to the Company that no Excise Tax will be imposed with respect to such Payment. Any good faith determinations of the accounting firm made hereunder will be final, binding and conclusive upon the Company and Executive.

11. Section 409A.

(a) General. The intent of the Parties is that the payments and benefits under this Agreement comply with or be exempt from Section 409A of the Code and the Department of Treasury regulations and other interpretive guidance issued thereunder, including without limitation any such regulations or other guidance that may be issued after the Effective Date, ("***Section 409A***") and, accordingly, to the maximum extent permitted, this Agreement shall be interpreted to be in compliance therewith. If Executive notifies the Company that Executive has received advice of tax counsel of a national reputation with expertise in Section 409A that any provision of this Agreement would cause Executive to incur any additional tax or interest under Section 409A (with specificity as to the reason therefor) or the Company independently makes such determination, the Company and Executive shall take commercially reasonable efforts to reform such provision to try to comply with or be exempt from Section 409A through good faith modifications to the minimum extent reasonably appropriate to conform with Section 409A, *provided* that any such modifications shall not increase the cost or liability to the Company. To the extent that any provision hereof is modified in order to comply with or be exempt from Section 409A, such modification shall be made in good faith and shall, to the maximum extent reasonably possible, maintain the original intent and economic benefit to Executive and the Company of the applicable provision without violating the provisions of Section 409A.

(b) Separation from Service. Notwithstanding any provision to the contrary in this Agreement: (i) no amount that constitutes "deferred compensation" under Section 409A shall be payable pursuant to Section 6 unless the termination of Executive's employment constitutes a "separation from service" within the meaning of Section 1.409A-1(h) of the Department of Treasury Regulations ("***Separation from Service***"); (ii) for purposes of Section 409A, Executive's right to receive installment payments shall be treated as a right to receive a series of separate and distinct payments; and (iii) to the extent that any reimbursement of expenses or in-kind benefits constitutes "deferred compensation" under Section 409A, such reimbursement or benefit shall be provided no later than December 31st of the year following the year in which the expense was incurred. The amount of expenses reimbursed in one year shall not affect the amount eligible for reimbursement in any subsequent year. The amount of any in-kind benefits provided in one year shall not affect the amount of in-kind benefits provided in any other year.

(c) Specified Employee. Notwithstanding anything in this Agreement to the contrary, if Executive is deemed by the Company at the time of Executive's Separation from Service to be a "specified employee" for purposes of Section 409A, to the extent delayed commencement of any portion of the benefits to which Executive is entitled under this Agreement is required in order to avoid a prohibited distribution under Section 409A, such portion of Executive's benefits shall not be provided to Executive prior to the earlier of (i) the expiration of the six-month period measured from the date of Executive's Separation from Service with the Company or (ii) the date of Executive's death. Upon the first business day following the expiration of the applicable Section 409A period, all payments deferred pursuant to the preceding sentence shall be paid in a lump sum to Executive (or Executive's estate or beneficiaries), and any remaining payments due to Executive under this Agreement shall be paid as otherwise provided herein.

(d) Release. Notwithstanding anything to the contrary in this Agreement, to the extent that any payments due under this Agreement as a result of Executive's termination of employment are subject to Executive's execution and delivery of a Release, (i) the Company shall deliver the Release to Executive within ten business days following Executive's Date of Termination, and the Company's failure to deliver a Release prior to the expiration of such ten business day period shall constitute a waiver of any requirement to execute a Release, (ii) if Executive fails to execute the Release on or prior to the Release Expiration Date (as defined below) or timely revokes Executive's acceptance of the Release thereafter, Executive shall not be entitled to any payments or benefits otherwise conditioned on the Release, and (iii) in any case where Executive's Date of Termination and the Release Expiration Date fall in two separate taxable years, any payments required to be made to Executive that are conditioned on the Release and are treated as nonqualified deferred compensation for purposes of Section 409A shall be made in the later taxable year. For purposes of this Section 11(d), "***Release Expiration Date***" shall mean the date that is 21 days following the date upon which the Company timely delivers the Release to Executive, or, in the event that Executive's termination of employment is "in connection with an exit incentive or other employment termination program" (as such phrase is defined in the Age Discrimination in Employment Act of 1967), the date that is 45 days following such delivery date. To the extent that any payments of nonqualified deferred compensation (within the meaning of Section 409A) due under this Agreement as a result of Executive's termination of employment are delayed pursuant to this Section 11(d), such amounts shall be paid in a lump sum on the first payroll date following the date that Executive executes and does not revoke the Release (and the applicable revocation period has expired) or, in the case of any payments subject to Section 11(d)(iii), on the first payroll period to occur in the subsequent taxable year, if later.

12. Employee Acknowledgement. Executive acknowledges that Executive has read and understands this Agreement, is fully aware of its legal effect, has not acted in reliance upon any representations or promises made by the Company other than those contained in writing herein, and has entered into this Agreement freely based on Executive's own judgment.

[*Signature Page Follows*]

The Parties have executed this Agreement as of the Agreement Date.

GRITSTONE ONCOLOGY, INC.

By: /s/ Andrew Allen
Name: Andrew Allen
Title: President and Chief Executive Officer

EXECUTIVE

By: /s/ Erin Jones
Name: Erin Jones

Address:

GRITSTONE ONCOLOGY, INC.
NON-EMPLOYEE DIRECTOR COMPENSATION PROGRAM

This Gritstone Oncology, Inc. (the "***Company***") Non-Employee Director Compensation Program (this "***Program***") has been adopted under the Company's 2018 Incentive Award Plan (the "***Plan***") and shall be effective upon the closing of the Company's initial public offering of its common stock (the "***IPO***"). Capitalized terms not otherwise defined herein shall have the meaning ascribed in the Plan.

Cash Compensation

Effective upon the IPO, annual retainers will be paid in the following amounts to Non-Employee Directors:

Non-Employee Director:	$35,000
Non-Executive Chair:	$30,000
Audit Committee Chair:	$15,000
Compensation Committee Chair:	$10,000
Nominating and Corporate Governance Committee Chair:	$ 8,000
Audit Committee Member (non-Chair):	$ 7,500
Compensation Committee Member (non-Chair):	$ 5,000
Nominating and Corporate Governance Committee Member (non-Chair):	$ 4,000

All annual retainers will be paid in cash quarterly in arrears promptly following the end of the applicable calendar quarter, but in no event more than 30 days after the end of such quarter. In the event a Non-Employee Director does not serve as a Non-Employee Director, or in the applicable positions described above, for an entire calendar quarter, the retainer paid to such Non-Employee Director shall be prorated for the portion of such calendar quarter actually served as a Non-Employee Director, or in such position, as applicable.

Equity Compensation

Initial Stock Option Grant: Each Non-Employee Director who is initially elected or appointed to serve on the Board after the IPO shall be granted an Option under the Plan or any other applicable Company equity incentive plan then-maintained by the Company to purchase 15,942 shares of Common Stock.

The Initial Option will be automatically granted on the date on which such Non-Employee Director commences service on the Board, and will vest as to 1/36th of the shares subject thereto on each monthly anniversary of the applicable date of grant such that the shares subject to the Initial Option are fully vested on the third anniversary of the grant, subject to the Non-Employee Director continuing in service on the Board through each vesting date.

Annual Stock Option Grant:	Each Non-Employee Director who is serving on the Board as of the date of each annual shareholder meeting of the Company (each, an "***Annual Meeting***") shall be granted an Option under the Plan or any other applicable Company equity incentive plan then-maintained by the Company to purchase 7,971 shares of Common Stock, provided that the number of shares subject to the Annual Option will be prorated for any partial year of service as a Non-Employee Director. The Annual Option will be automatically granted on the date of the applicable Annual Meeting, and will vest in full on the earlier of (i) the first anniversary of the date of grant and (ii) immediately prior to the Annual Meeting following the date of grant, subject to the Non-Employee Director continuing in service on the Board through such vesting date.

The per share exercise price of each Option granted to a Non-Employee Director shall equal the Fair Market Value of a share of common stock on the date the Option is granted.

The term of each Option granted to a Non-Employee Director shall be ten years from the date the Option is granted.

No portion of an Initial Option or Annual Option which is unvested or unexercisable at the time of a Non-Employee Director's termination of service on the Board shall become vested and exercisable thereafter.

Members of the Board who are employees of the Company or any parent or subsidiary of the Company who subsequently terminate their service with the Company and any parent or subsidiary of the Company and remain on the Board will not receive an Initial Option, but to the extent that they are otherwise eligible, will be eligible to receive, after termination from service with the Company and any parent or subsidiary of the Company, Annual Options as described above.

Change in Control

Upon a Change in Control of the Company, all outstanding equity awards granted under the Plan and any other equity incentive plan maintained by the Company that are held by a Non-Employee Director shall become fully vested and/or exercisable, irrespective of any other provisions of the Non-Employee Director's Award Agreement.

Reimbursements

The Company shall reimburse each Non-Employee Director for all reasonable, documented, out-of-pocket travel and other business expenses incurred by such Non-Employee Director in the performance of his or her duties to the Company in accordance with the Company's applicable expense reimbursement policies and procedures as in effect from time to time.

Miscellaneous

The other provisions of the Plan shall apply to the Options granted automatically pursuant to this Program, except to the extent such other provisions are inconsistent with this Program. All applicable terms of the Plan apply to this Program as if fully set forth herein, and all grants of Options hereby are subject in all respects to the terms of the Plan. The grant of any Option under this Program shall be made solely by and subject to the terms set forth in a written agreement in a form to be approved by the Board and duly executed by an executive officer of the Company.

Effectiveness

This Program shall become effective upon the consummation of the IPO.

GRITSTONE ONCOLOGY, INC.

INDEMNIFICATION AGREEMENT

This Indemnification Agreement (this "Agreement") is effective as of «Date» by and between Gritstone Oncology, Inc., a Delaware corporation (the "Company"), and «Indemnitee» ("Indemnitee"). This Agreement supersedes and replaces any and all previous agreements between the Company and the Indemnitee covering indemnification.

A. The Company recognizes the difficulty in obtaining liability insurance for its directors, officers, employees, controlling persons, fiduciaries and other agents and affiliates, the significant cost of such insurance and the general limitations in the coverage of such insurance.

B. The Company further recognizes the substantial increase in corporate litigation in general, subjecting directors, officers, employees, controlling persons, fiduciaries and other agents and affiliates to expensive litigation risks at the same time as the availability and coverage of liability insurance has been severely limited.

C. The current protection available to directors, officers, employees, controlling persons, fiduciaries and other agents and affiliates of the Company may not be adequate under the present circumstances, and directors, officers, employees, controlling persons, fiduciaries and other agents and affiliates of the Company (or persons who may be alleged or deemed to be the same), including the Indemnitee, may not be willing to serve or continue to serve or be associated with the Company in such capacities without additional protection.

D. The Company (a) desires to attract and retain the involvement of highly qualified persons, such as Indemnitee, to serve and be associated with the Company, and (b) accordingly, wishes to provide for the indemnification and advancement of expenses to the Indemnitee to the maximum extent permitted by law.

E. In view of the considerations set forth above, the Company desires that Indemnitee shall be indemnified and advanced expenses by the Company as set forth herein.

AGREEMENT:

In consideration of the mutual promises and covenants contained herein, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

1. Certain Definitions.

(a) "*Change in Control*" shall be deemed to have occurred if, on or after the date of this Agreement, (i) any "person" (as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended), other than a trustee or other fiduciary holding securities under an employee benefit plan of the Company acting in such capacity or a corporation owned directly or indirectly by the stockholders of the Company in substantially the same proportions as their ownership of stock of the Company, becomes the "beneficial owner"

(as defined in Rule 13d-3 under said Act), directly or indirectly, of securities of the Company representing more than fifty percent (50%) of the total voting power represented by the Company's then outstanding Voting Securities, (ii) during any period of two (2) consecutive years, individuals who at the beginning of such period constitute the Board of Directors of the Company and any new director whose election by the Board of Directors or nomination for election by the Company's stockholders was approved by a vote of at least two-thirds (2/3) of the directors then still in office who either were directors at the beginning of the period or whose election or nomination for election was previously so approved, cease for any reason to constitute a majority thereof, (iii) the stockholders of the Company approve a merger or consolidation of the Company with any other corporation other than a merger or consolidation which would result in the Voting Securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into Voting Securities of the surviving entity) at least eighty percent (80%) of the total voting power represented by the Voting Securities of the Company or such surviving entity outstanding immediately after such merger or consolidation or (iv) the stockholders of the Company approve a plan of complete liquidation of the Company or an agreement for the sale or disposition by the Company of (in one transaction or a series of related transactions) all or substantially all of the Company's assets.

(b) "*Claim*" shall mean with respect to a Covered Event: any threatened, asserted, pending or completed action, suit, proceeding or alternative dispute resolution mechanism, or any hearing, inquiry or investigation (formal or informal) that Indemnitee [(or in the case of a Fund Indemnitor (as defined in Section 18 below) seeking to be indemnified, a Fund Indemnitor)][1] in good faith believes might lead to the institution of any such action, suit, proceeding or alternative dispute resolution mechanism, whether civil, criminal, administrative, investigative or other, including any appeal therefrom.

(c) References to the "*Company*" shall include, in addition to Gritstone Oncology, Inc., any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger to which Gritstone Oncology, Inc. (or any of its wholly owned subsidiaries) is a party, which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, employees, agents or fiduciaries, so that if Indemnitee is or was a director, officer, employee, agent or fiduciary of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee, agent or fiduciary of another corporation, partnership, joint venture, employee benefit plan, trust or other enterprise, Indemnitee shall stand in the same position under the provisions of this Agreement with respect to the resulting or surviving corporation as Indemnitee would have with respect to such constituent corporation if its separate existence had continued.

(d) "*Covered Event*" shall mean any event or occurrence by reason of the fact that Indemnitee is or was a director, officer, employee, agent or fiduciary of the Company, or any subsidiary of the Company, direct or indirect, whether before or after the date of this Agreement, or is or was serving at the request of the Company as a director, officer, employee, agent or fiduciary of another corporation, partnership, joint venture, trust or other enterprise, or by reason of any action or inaction on the part of Indemnitee while serving in such capacity, whether before or after the date of this Agreement.

---

[1] **Note to Form**: To be included when applicable.

(e) "*Expense Advance*" shall mean a payment to Indemnitee for Expenses pursuant to Section 3 hereof, in advance of the settlement of or final judgment in any action, suit, proceeding or alternative dispute resolution mechanism, hearing, inquiry or investigation, which constitutes a Claim.

(f) "*Expenses*" shall mean any and all direct and indirect costs, losses, claims, damages, fees, expenses and liabilities, joint or several (including reasonable attorneys' fees and all other costs, expenses and obligations reasonably incurred in connection with investigating, defending, being a witness in or participating in (including on appeal), or preparing to defend, to be a witness in or to participate in, any action, suit, proceeding, alternative dispute resolution mechanism, hearing, inquiry or investigation), judgments, fines, penalties and amounts paid in settlement (if such settlement is approved in advance by the Company, which approval shall not be unreasonably withheld) actually and reasonably incurred, of any Claim and any federal, state, local or foreign taxes imposed on the Indemnitee as a result of the actual or deemed receipt of any payments under this Agreement, ERISA excise taxes and penalties.

(g) "*Independent Legal Counsel*" shall mean an attorney or firm of attorneys, selected in accordance with the provisions of Section 2(d) hereof, who shall not have otherwise performed services for (i) the Company or Indemnitee in any matter material to either such party (other than with respect to matters concerning the rights of Indemnitee under this Agreement, or of other indemnitees under similar indemnity agreements) or (ii) any other party to the Claim giving rise to a claim for indemnification hereunder, within the last three (3) years. Notwithstanding the foregoing, the term "Independent Legal Counsel" shall not include any person who, under the applicable standards of professional conduct then prevailing, would have a conflict of interest in representing either the Company or Indemnitee in an action to determine Indemnitee's rights under this Agreement.

(h) References to "*other enterprises*" shall include employee benefit plans; references to "*fines"* shall include any excise taxes assessed on Indemnitee with respect to an employee benefit plan; and references to "*serving at the request of the Company*" shall include any service as a director, officer, employee, agent or fiduciary of the Company which imposes duties on, or involves services by, such director, officer, employee, agent or fiduciary with respect to an employee benefit plan, its participants or its beneficiaries; and if Indemnitee acted in good faith and in a manner Indemnitee reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan, Indemnitee shall be deemed to have acted in a manner "*not opposed to the best interests of the Company*" as referred to in this Agreement.

(i) "*Reviewing Party*" shall mean, subject to the provisions of Section 2(d), any person or body appointed by the Board of Directors in accordance with applicable law to review the Company's obligations hereunder and under applicable law, which may include a member or members of the Company's Board of Directors, Independent Legal Counsel or any other person or body not a party to the particular Claim for which Indemnitee is seeking indemnification, exoneration or hold harmless rights. In the absence of the appointment of another Reviewing Party, but subject to the provisions of Section 2(d), the full Board of Directors shall be deemed to be the "Reviewing Party" within the meaning of this Agreement.

(j) "*Section*" refers to a section of this Agreement unless otherwise indicated.

(k) "*Voting Securities*" shall mean any securities of the Company that vote generally in the election of directors.

2. Indemnification.

(a) Indemnification of Expenses. Subject to the provisions of Section 2(b) below, the Company shall indemnify, exonerate or hold harmless Indemnitee for Expenses to the fullest extent permitted by law if Indemnitee was, is or becomes a party to or witness or other participant in, or is threatened to be made a party to or witness or other participant in, any Claim (whether by reason of or arising in part out of a Covered Event), including all interest, assessments and other charges incurred in connection with or in respect of such Expenses.

(b) Review of Indemnification Obligations.

(i) Notwithstanding the foregoing, in the event any Reviewing Party shall have determined (in a written opinion, in any case in which Independent Legal Counsel is the Reviewing Party) that Indemnitee is not entitled to be indemnified, exonerated or held harmless hereunder under applicable law, (A) the Company shall have no further obligation under Section 2(a) to make any payments to Indemnitee not made prior to such determination by such Reviewing Party and (B) the Company shall be entitled to be reimbursed by Indemnitee (who hereby agrees to reimburse the Company) for all Expenses theretofore paid in indemnifying, exonerating or holding harmless Indemnitee (within thirty (30) days after such determination); *provided*, *however*, that if Indemnitee has commenced or thereafter commences legal proceedings in a court of competent jurisdiction to secure a determination that Indemnitee is entitled to be indemnified, exonerated or held harmless hereunder under applicable law, any determination made by any Reviewing Party that Indemnitee is not entitled to be indemnified hereunder under applicable law shall not be binding and Indemnitee shall not be required to reimburse the Company for any Expenses theretofore paid in indemnifying, exonerating or holding harmless Indemnitee until a final judicial determination is made with respect thereto (as to which all rights of appeal therefrom have been exhausted or lapsed). Indemnitee's obligation to reimburse the Company for any Expenses shall be unsecured and no interest shall be charged thereon.

(ii) Subject to Section 2(b)(iii) below, if the Reviewing Party shall not have made a determination within forty-five (45) days after receipt by the Company of the request therefor, the requisite determination of entitlement to indemnification shall, to the fullest extent not prohibited by law, be deemed to have been made and Indemnitee shall be entitled to such indemnification, absent (A) a misstatement by Indemnitee of a material fact, or an omission of a material fact necessary to make Indemnitee's statement not materially misleading, in connection with the request for indemnification or (B) a prohibition of such indemnification under applicable law; *provided*, *however*, that such 45-day period may be extended for a reasonable time, not to exceed an additional thirty (30) days, if the person, persons or entity making the determination with respect to entitlement to indemnification in good faith requires such additional time for the obtaining or evaluating of documentation and/or information relating thereto.

(iii) Notwithstanding anything in this Agreement to the contrary, no determination as to entitlement of Indemnitee to indemnification under this Agreement shall be required to be made prior to the final disposition of the Claim.

(c) Indemnitee Rights on Unfavorable Determination; Binding Effect. If any Reviewing Party determines that Indemnitee substantively is not entitled to be indemnified, exonerated or held harmless hereunder in whole or in part under applicable law, Indemnitee shall have the right to commence litigation seeking an initial determination by the court or challenging any such determination by such Reviewing Party or any aspect thereof, including the legal or factual bases therefor, and, subject to the provisions of Section 15 hereof, the Company hereby consents to service of process and to appear in any such proceeding. Absent such litigation, any determination by any Reviewing Party shall be conclusive and binding on the Company and Indemnitee.

(d) Selection of Reviewing Party; Change in Control. If there has not been a Change in Control, any Reviewing Party shall be selected by the Board of Directors, which may be the full Board of Directors in the absence of the selection of another Reviewing Party, and if there has been such a Change in Control (other than a Change in Control which has been approved by a majority of the Company's Board of Directors who were directors immediately prior to such Change in Control), any Reviewing Party with respect to all matters thereafter arising concerning Indemnitee's indemnification, exoneration or hold harmless rights for Expenses under this Agreement or any other agreement or under the Company's Certificate of Incorporation or bylaws as now or hereafter in effect, or under any other applicable law, if desired by Indemnitee, shall be Independent Legal Counsel selected by the Indemnitee and approved by Company (which approval shall not be unreasonably withheld). Such counsel, among other things, shall render its written opinion to the Company and Indemnitee as to whether and to what extent Indemnitee would be entitled to be indemnified, exonerated or held harmless hereunder under applicable law and the Company agrees to abide by such opinion. The Company agrees to pay the reasonable fees of the Independent Legal Counsel referred to above and to fully indemnify, exonerate and hold harmless such counsel against any and all expenses (including attorneys' fees), claims, liabilities and damages arising out of or relating to this Agreement or its engagement pursuant hereto. Notwithstanding any other provision of this Agreement, the Company shall not be required to pay Expenses of more than one Independent Legal Counsel in connection with all matters concerning a single Indemnitee, and such Independent Legal Counsel shall be the Independent Legal Counsel for any or all other Indemnitees unless (i) the Company otherwise determines or (ii) any Indemnitee shall provide a written statement setting forth in detail a reasonable objection to such Independent Legal Counsel representing other Indemnitees.

(e) Mandatory Payment of Expenses. Notwithstanding any other provision of this Agreement other than Section 10 hereof, to the fullest extent permitted by applicable law and to the extent that Indemnitee was a party to (or participant in) and has been successful on the merits or otherwise, including, without limitation, the dismissal of an action without prejudice, in

defense of any Claim, Indemnitee shall be indemnified, exonerated and held harmless against all Expenses actually and reasonably incurred by Indemnitee in connection therewith. If Indemnitee is not wholly successful in such Claim but is successful, on the merits or otherwise, as to one or more but less than all claims, issues or matters in such Claim, the Company shall indemnify Indemnitee against all Expenses actually and reasonably incurred by him or on his behalf in connection with or related to each successfully resolved claim, issue or matter to the fullest extent permitted by law. For purposes of this Section and without limitation, the termination of any claim, issue or matter in such a Claim by dismissal, with or without prejudice, shall be deemed to be a successful result as to such claim, issue or matter.

(f) Contribution. If the indemnification, exoneration or hold harmless rights provided for in this Agreement is for any reason held by a court of competent jurisdiction to be unavailable to an Indemnitee, then in lieu of indemnifying, exonerating or holding harmless Indemnitee thereunder, the Company shall contribute to the amount paid or required to be paid by Indemnitee as a result of such Expenses (i) in such proportion as is deemed fair and reasonable in light of all of the circumstances in order to reflect the relative benefits received by the Company and Indemnitee as a result of the event(s) and/or transaction(s) giving cause to such Claim or (ii) if the allocation provided by clause (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 (i) above but also the relative fault of the Company (and its directors, officers, employees and agents) and Indemnitee in connection with the action or inaction which resulted in such Expenses, as well as any other relevant equitable considerations. In connection with the registration of the Company's securities, the relative benefits received by the Company and Indemnitee shall be deemed to be in the same respective proportions that the net proceeds from the offering (before deducting expenses) received by the Company and Indemnitee, in each case as set forth in the table on the cover page of the applicable prospectus, bear to the aggregate public offering price of the securities so offered. The relative fault of the Company and Indemnitee 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 or Indemnitee and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission.

The Company and Indemnitee agree that it would not be just and equitable if contribution pursuant to this Section 2(f) were determined by pro rata or by any other method of allocation which does not take account of the equitable considerations referred to in the immediately preceding paragraph. In connection with the registration of the Company's securities, in no event shall Indemnitee be required to contribute any amount under this Section 2(f) in excess of the net proceeds received by Indemnitee from its sale of securities under such registration statement. No person found guilty of fraudulent misrepresentation (within the meaning of Section 11(a) of the Securities Act of 1933, as amended) shall be entitled to contribution from any person who was not found guilty of such fraudulent misrepresentation.

3. Expense Advances.

(a) Obligation to Make Expense Advances. The Company shall make Expense Advances to Indemnitee upon receipt of a written undertaking, in the form attached hereto as Exhibit A, by or on behalf of the Indemnitee to repay such amounts if it shall ultimately be determined that the Indemnitee is not entitled to be indemnified, exonerated or held harmless therefor by the Company.

(b) Form of Undertaking. Any written undertaking by the Indemnitee to repay any Expense Advances hereunder shall be unsecured and no interest shall be charged thereon.

4. Procedures for Indemnification and Expense Advances.

(a) Timing of Payments. All payments of Expenses (including without limitation Expense Advances) by the Company to the Indemnitee pursuant to this Agreement shall be made to the fullest extent permitted by law as soon as practicable after written demand by Indemnitee therefor is presented to the Company, but in no event later than forty-five (45) days after such written demand by Indemnitee is presented to the Company, except in the case of Expense Advances, which shall be made no later than twenty (20) days after such written demand by Indemnitee is presented to the Company. If the Company disputes a portion of the amounts for which indemnification is requested, the undisputed portion shall be paid and only the disputed portion withheld pending resolution of any such dispute.

(b) Notice/Cooperation by Indemnitee. Indemnitee shall, as a condition precedent to Indemnitee's right to be indemnified, exonerated or held harmless or Indemnitee's right to receive Expense Advances under this Agreement, give the Company notice in writing as soon as practicable of any Claim made against Indemnitee for which indemnification, exoneration or hold harmless rights will or could be sought under this Agreement. Notice to the Company shall be directed to the President and the Secretary of the Company at the address shown on the signature page of this Agreement (or such other address as the Company shall designate in writing to Indemnitee) and shall include a description of the nature of the Claim and the facts underlying the Claim, in each case to the extent known to Indemnitee. To obtain indemnification under this Agreement, Indemnitee shall submit to the Company a written request, including therein or therewith such documentation and information as is reasonably available to Indemnitee and is reasonably necessary to determine whether and to what extent Indemnitee is entitled to indemnification following the final disposition of such Claim. In addition, Indemnitee shall give the Company such information and cooperation as the Company may reasonably require and as shall be within Indemnitee's power. The failure by Indemnitee to notify the Company hereunder will not relieve the Company from any liability which it may have to Indemnitee hereunder or otherwise than under this Agreement, and any delay in so notifying the Company shall not constitute a waiver by Indemnitee of any rights under this Agreement, except to the extent (solely with respect to the indemnity hereunder) that such failure or delay materially prejudices the Company.

(c) No Presumptions; Burden of Proof. For purposes of this Agreement, the termination of any Claim by judgment, order, settlement (whether with or without court approval) or conviction, or upon a plea of *nolo contendere*, or its equivalent, shall not create a presumption that Indemnitee did not meet any particular standard of conduct or have any particular belief or that a court has determined that indemnification, exoneration or hold harmless right is not permitted by this Agreement or applicable law. In addition, neither the failure of any

Reviewing Party to have made a determination as to whether Indemnitee has met any particular standard of conduct or had any particular belief, nor an actual determination by any Reviewing Party that Indemnitee has not met such standard of conduct or did not have such belief, prior to the commencement of legal proceedings by Indemnitee to secure a judicial determination that Indemnitee should be indemnified, exonerated or held harmless under this Agreement or applicable law, shall be a defense to Indemnitee's claim or create a presumption that Indemnitee has not met any particular standard of conduct or did not have any particular belief. In connection with any determination by any Reviewing Party or otherwise as to whether the Indemnitee is entitled to be indemnified, exonerated or held harmless hereunder, the burden of proof shall be on the Company to establish that Indemnitee is not so entitled.

(d) Notice to Insurers. If, at the time of the receipt by the Company of a notice of a Claim pursuant to Section 4(b) hereof, the Company has liability insurance in effect which may cover such Claim, the Company shall give prompt notice of the commencement of such Claim to the insurers in accordance with the procedures set forth in the respective policies. The Company shall thereafter take all reasonably necessary or desirable action to cause such insurers to pay, on behalf of the Indemnitee, all amounts payable as a result of such Claim in accordance with the terms of such policies.

(e) Selection of Counsel. In the event the Company shall be obligated hereunder to provide indemnification, exoneration or hold harmless rights for or make any Expense Advances with respect to the Expenses of any Claim, the Company, if appropriate, shall be entitled to assume the defense of such Claim with counsel approved by Indemnitee (which approval shall not be unreasonably withheld) upon the delivery to Indemnitee of written notice of the Company's election to do so. After delivery of such notice, approval of such counsel by Indemnitee and the retention of such counsel by the Company, the Company will not be liable to Indemnitee under this Agreement for any fees or expenses of separate counsel subsequently employed by or on behalf of Indemnitee with respect to the same Claim; *provided, however*, that (i) Indemnitee shall have the right to employ Indemnitee's separate counsel in any such Claim at Indemnitee's expense and (ii) if (A) the employment of separate counsel by Indemnitee has been previously authorized by the Company, (B) Indemnitee shall have reasonably concluded that there may be a conflict of interest between the Company and Indemnitee in the conduct of any such defense or (C) the Company shall not continue to retain such counsel to defend such Claim, then the fees and expenses of Indemnitee's separate counsel shall be Expenses for which Indemnitee may receive indemnification, exoneration or hold harmless rights or Expense Advances hereunder. The Company shall have the right to conduct such defense as it sees fit in its sole discretion, including the right to settle any claim, action or proceeding against Indemnitee without the consent of Indemnitee, provided that the terms of such settlement include either: (i) a full release of Indemnitee by the claimant from all liabilities or potential liabilities under such claim or (ii), in the event such full release is not obtained, the terms of such settlement do not limit any indemnification, exoneration or hold harmless rights Indemnitee may now, or hereafter, be entitled to under this Agreement, the Company's Certificate of Incorporation, bylaws, any agreement, any vote of stockholders or disinterested directors, the General Corporation Law of the State of Delaware (the "DGCL") or otherwise.

5. Additional Indemnification Rights; Nonexclusivity.

(a) Scope. The Company hereby agrees to indemnify, exonerate and hold harmless the Indemnitee to the fullest extent permitted by law, notwithstanding that such indemnification, exoneration or hold harmless right is not specifically authorized by the other provisions of this Agreement, the Company's Certificate of Incorporation, the Company's bylaws or by statute, a vote of stockholders or a resolution of directors, or otherwise. The rights of indemnification and to receive Expense Advances as provided by this Agreement shall be interpreted independently of, and without reference to, any other such rights to which Indemnitee may at any time be entitled. In the event of any change after the date of this Agreement in any applicable law, statute or rule which expands the right of a Delaware corporation to indemnify, exonerate or hold harmless a member of its board of directors or an officer, employee, agent or fiduciary, it is the intent of the parties hereto that Indemnitee shall enjoy by this Agreement the greater benefits afforded by such change. In the event of any change in any applicable law, statute or rule which narrows the right of a Delaware corporation to indemnify, exonerate or hold harmless a member of its board of directors or an officer, employee, agent or fiduciary, such change, to the extent not otherwise required by such law, statute or rule to be applied to this Agreement, shall have no effect on this Agreement or the parties' rights and obligations hereunder except as set forth in Section 10(a) hereof.

(b) Nonexclusivity. The indemnification, exoneration or hold harmless rights and the payment of Expense Advances provided by this Agreement shall be in addition to any rights to which Indemnitee may be entitled under the Company's Certificate of Incorporation, its bylaws, any other agreement, any vote of stockholders or disinterested directors, the DGCL, or otherwise. The indemnification, exoneration or hold harmless rights and the payment of Expense Advances provided under this Agreement shall continue as to Indemnitee for any action taken or not taken while serving in an indemnified, exonerated or held harmless capacity even though subsequent thereto Indemnitee may have ceased to serve in such capacity.

6. No Duplication of Payments. The Company shall not be liable under this Agreement to make any payment in connection with any Claim made against Indemnitee to the extent Indemnitee has otherwise actually received payment (under any insurance policy, provision of the Company's Certificate of Incorporation, bylaws or otherwise) of the amounts otherwise payable hereunder, except as provided in Section 18 below.

7. Partial Indemnification. If Indemnitee is entitled under any provision of this Agreement to indemnification, exoneration or hold harmless rights by the Company for some or a portion of Expenses incurred in connection with any Claim, but not, however, for the total amount thereof, the Company shall nevertheless indemnify, exonerate or hold harmless Indemnitee for the portion of such Expenses to which Indemnitee is entitled.

8. Mutual Acknowledgment. Both the Company and Indemnitee acknowledge that in certain instances, federal law or applicable public policy may prohibit the Company from indemnifying, exonerating or holding harmless its directors, officers, employees, agents or fiduciaries under this Agreement or otherwise. Indemnitee understands and acknowledges that the Company may be required in the future to undertake with the Securities and Exchange Commission to submit the question of indemnification, exoneration or hold harmless rights to a court in certain circumstances for a determination of the Company's right under public policy to indemnify, exonerate or hold harmless Indemnitee.

9. Liability Insurance. To the extent the Company maintains liability insurance applicable to directors, officers, employees, agents or fiduciaries, Indemnitee shall be covered by such policies in such a manner as to provide Indemnitee the same rights and benefits as are provided to the most favorably insured of the Company's directors who are not employees of the Company, if Indemnitee is a director who is not employed by the Company; or of the Company's officers, if Indemnitee is a director of the Company and is also employed by the Company, or is not a director of the Company but is an officer; or in the Company's sole discretion, if Indemnitee is not an officer or director but is an employee, agent or fiduciary.

10. Exceptions. Notwithstanding any other provision of this Agreement, the Company shall not be obligated pursuant to the terms of this Agreement:

(a) Excluded Action or Omissions. To indemnify, exonerate or hold harmless Indemnitee for Expenses resulting from acts, omissions or transactions for which Indemnitee is prohibited from receiving indemnification, exoneration or hold harmless rights under this Agreement or applicable law; *provided, however*, that notwithstanding any limitation set forth in this Section 10(a) regarding the Company's obligation to provide indemnification, exoneration or hold harmless rights to Indemnitee, Indemnitee shall be entitled under Section 3 to receive Expense Advances hereunder with respect to any such Claim unless and until a court having jurisdiction over the Claim shall have made a final judicial determination (as to which all rights of appeal therefrom have been exhausted or lapsed) that Indemnitee has engaged in acts, omissions or transactions for which Indemnitee is prohibited from receiving indemnification under this Agreement or applicable law.

(b) Claims Initiated by Indemnitee. To indemnify, exonerate or hold harmless or make Expense Advances to Indemnitee with respect to Claims initiated or brought voluntarily by Indemnitee and not by way of defense, counterclaim or cross claim, except (i) with respect to actions or proceedings brought to establish or enforce an indemnification, exoneration or hold harmless right under this Agreement or any other agreement or insurance policy or under the Company's Certificate of Incorporation or bylaws now or hereafter in effect relating to Claims for Covered Events, (ii) in specific cases if the Board of Directors has approved the initiation or bringing of such Claim or (iii) as otherwise required under Section 145 of the DGCL, regardless of whether Indemnitee ultimately is determined to be entitled to such indemnification, exoneration, hold harmless right, Expense Advances or insurance recovery, as the case may be.

(c) Lack of Good Faith. To indemnify, exonerate or hold harmless Indemnitee for any Expenses incurred by Indemnitee with respect to any action instituted (i) by Indemnitee to enforce or interpret this Agreement, if a court having jurisdiction over such action determines as provided in Section 13 hereof that each of the material assertions made by Indemnitee as a basis for such action was not made in good faith or was frivolous or (ii) by or in the name of the Company to enforce or interpret this Agreement, if a court having jurisdiction over such action determines as provided in Section 13 hereof that each of the material defenses asserted by Indemnitee in such action was made in bad faith or was frivolous.

(d) Claims Under Section 16(b) or Sarbanes-Oxley Act. To indemnify, exonerate or hold harmless Indemnitee for expenses and the payment of profits arising from the purchase and sale by Indemnitee of securities in violation of Section 16(b) of the Securities

Exchange Act of 1934, as amended, or any similar successor statute or (ii) any reimbursement of the Company by Indemnitee of any bonus or other incentive-based or equity-based compensation or of any profits realized by Indemnitee from the sale of securities of the Company, as required in each case under the Exchange Act (including any such reimbursements that arise from an accounting restatement of the Company pursuant to Section 304 of the Sarbanes-Oxley Act of 2002 (the "Sarbanes-Oxley Act"), or the payment to the Company of profits arising from the purchase and sale by Indemnitee of securities in violation of Section 306 of the Sarbanes-Oxley Act); *provided, however,* that notwithstanding any limitation set forth in this Section 10(d) regarding the Company's obligation to provide indemnification or exoneration or hold harmless, Indemnitee shall be entitled under Section 3 hereof to receive Expense Advances hereunder with respect to any such Claim unless and until a court having jurisdiction over the Claim shall have made a final judicial determination (as to which all rights of appeal therefrom have been exhausted or lapsed) that Indemnitee has violated said statute.

11. Counterparts. This Agreement may be executed in counterparts and by facsimile or electronic transmission, each of which shall constitute an original and all of which, together, shall constitute one instrument.

12. Binding Effect; Successors and Assigns. This Agreement shall be binding upon, inure to the benefit of and be enforceable by the parties hereto and their respective successors and assigns (including any direct or indirect successor by purchase, merger, consolidation or otherwise to all or substantially all of the business and/or assets of the Company), spouses, heirs, and personal and legal representatives. The Company shall require and cause any successor (whether direct or indirect by purchase, merger, consolidation or otherwise) to all, substantially all, or a substantial part, of the business and/or assets of the Company, by written agreement in form and substance satisfactory to Indemnitee, expressly to assume and agree to perform this Agreement in the same manner and to the same extent that the Company would be required to perform if no such succession had taken place. This Agreement shall continue in effect regardless of whether Indemnitee continues to serve as a director, officer, employee, agent or fiduciary (as applicable) of the Company or of any other enterprise at the Company's request. [The Company and Indemnitee agree that the Fund Indemnitors (as defined in Section 18 below) are express third party beneficiaries of this Agreement.][2]

13. Expenses Incurred in Action Relating to Enforcement or Interpretation. In the event that any action is instituted by Indemnitee under this Agreement or under any liability insurance policies maintained by the Company to enforce or interpret any of the terms hereof or thereof, Indemnitee shall be entitled to be indemnified for all Expenses incurred by Indemnitee with respect to such action (including without limitation attorneys' fees), regardless of whether Indemnitee is ultimately successful in such action, unless as a part of such action a court having jurisdiction over such action makes a final judicial determination (as to which all rights of appeal therefrom have been exhausted or lapsed) that each of the material assertions made by Indemnitee as a basis for such action was not made in good faith or was frivolous; *provided*, *however*, that until such final judicial determination is made, Indemnitee shall be entitled under Section 3 to receive payment of Expense Advances hereunder with respect to such action. In the event of an action instituted by or in the name of the Company under this Agreement to enforce

[2] **Note to Form**: To be included when applicable.

or interpret any of the terms of this Agreement, Indemnitee shall be entitled to be indemnified, exonerated or held harmless for all Expenses incurred by Indemnitee in defense of such action (including without limitation costs and expenses incurred with respect to Indemnitee's counterclaims and cross-claims made in such action), unless as a part of such action a court having jurisdiction over such action makes a final judicial determination (as to which all rights of appeal therefrom have been exhausted or lapsed) that each of the material defenses asserted by Indemnitee in such action was made in bad faith or was frivolous; *provided*, *however*, that until such final judicial determination is made, Indemnitee shall be entitled under Section 3 to receive payment of Expense Advances hereunder with respect to such action.

14. Notices. All notices, requests, demands and other communications under this Agreement shall be in writing and shall be deemed duly given (i) if delivered by hand and signed for by the party addressed, on the date of such delivery or (ii) if mailed by domestic certified or registered mail with postage prepaid, on the third business day after the date postmarked. Addresses for notice to either party are as shown on the signature page of this Agreement or as subsequently modified by written notice.

15. Consent to Jurisdiction. The Company and Indemnitee each hereby irrevocably consent to the jurisdiction of the courts of the State of Delaware for all purposes in connection with any action or proceeding which arises out of or relates to this Agreement and agree that any action instituted under this Agreement shall be commenced, prosecuted and continued only in the Court of Chancery of the State of Delaware in and for New Castle County, which shall be the exclusive and only proper forum for adjudicating such a claim.

16. Severability. The provisions of this Agreement shall be severable in the event that any of the provisions hereof (including any provision within a single section, paragraph or sentence) are held by a court of competent jurisdiction to be invalid, void or otherwise unenforceable, and the remaining provisions shall remain enforceable to the fullest extent permitted by law. Furthermore, to the fullest extent possible, the provisions of this Agreement (including without limitation each portion of this Agreement containing any provision held to be invalid, void or otherwise unenforceable, that is not itself invalid, void or unenforceable) shall be construed so as to give effect to the intent manifested by the provision held invalid, illegal or unenforceable.

17. Choice of Law. This Agreement, and all rights, remedies, liabilities, powers and duties of the parties to this Agreement, shall be governed by and construed in accordance with the laws of the State of Delaware without regard to principles of conflicts of laws.

18. Primacy of Indemnification; Subrogation.

(a) [The Company hereby acknowledges that Indemnitee has or may in the future have certain indemnification, exoneration, hold harmless or Expense advancement rights and/or insurance provided by [Fund] and certain of its affiliates (collectively, the "Fund Indemnitors"). The Company hereby agrees (i) that it is the indemnitor of first resort (*i.e.*, its obligations to Indemnitee are primary and any obligation of the Fund Indemnitors to advance Expenses or to provide indemnification, exoneration or hold harmless rights for the same Expenses incurred by Indemnitee are secondary), (ii) that it shall be required to advance the full

amount of Expenses incurred by Indemnitee and shall be liable for the full amount of all Expenses, to the extent legally permitted and as required by the Certificate of Incorporation or bylaws of the Company (or any agreement between the Company and Indemnitee), without regard to any rights Indemnitee may have against the Fund Indemnitors, (iii) that it irrevocably waives, relinquishes and releases the Fund Indemnitors from any and all claims against the Fund Indemnitors for contribution, subrogation or any other recovery of any kind in respect thereof and (iv) if any Fund Indemnitor is a party to or a participant in a legal proceeding, which participation or involvement arises solely and exclusively as a result of Indemnitee's service to the Company as a director of the Company, then such Fund Indemnitor shall be entitled to all of the indemnification rights and remedies under this Agreement to the same extent as Indemnitee. The Company further agrees that no advancement or payment by the Fund Indemnitors on behalf of Indemnitee with respect to any Claim for which Indemnitee has sought indemnification, exoneration or hold harmless rights from the Company shall affect the foregoing and the Fund Indemnitors shall have a right to receive from the Company, contribution and/or be subrogated, to the extent of such advancement or payment to all of the rights of recovery of Indemnitee against the Company.][3]

(b) [Except as provided in Section 18(a) above,][I]n the event of payment under this Agreement, the Company shall be subrogated to the extent of such payment to all of the rights of recovery of Indemnitee from any insurance policy purchased by the Company, who shall execute all documents required and shall do all acts that may be necessary to secure such rights and to enable the Company effectively to bring suit to enforce such rights. In no event, however, shall the Company or any other person have any right of recovery, through subrogation or otherwise, against (i) Indemnitee, [or] (ii) [any Fund Indemnitor or (iii)][4] any insurance policy purchased or maintained by Indemnitee [or any Fund Indemnitor].

19. Amendment and Termination. No amendment, modification, termination or cancellation of this Agreement shall be effective unless it is in writing signed by both the parties hereto. No waiver of any of the provisions of this Agreement shall be deemed to be or shall constitute a waiver of any other provisions hereof (whether or not similar), nor shall such waiver constitute a continuing waiver.

20. Integration and Entire Agreement. This Agreement sets forth the entire understanding between the parties hereto and supersedes and merges all previous written and oral negotiations, commitments, understandings and agreements relating to the subject matter hereof between the parties hereto, including any existing director or officer indemnification agreement; *provided*, *however*, that this Agreement is a supplement to and in furtherance of the Certificate of Incorporation, the bylaws, any directors and officers insurance maintained by the Company and applicable law, and shall not be deemed a substitute therefor, nor to diminish or abrogate any rights of Indemnitee thereunder.

21. No Construction as Employment Agreement. Nothing contained in this Agreement shall be construed as giving Indemnitee any right to employment by the Company or any of its subsidiaries or affiliated entities.

---

3 **Note to Form:** To be included when applicable.

4 **Note to Form:** To be included when applicable.

22. Additional Acts. If for the validation of any of the provisions in this Agreement any act, resolution, approval or other procedure is required, the Company undertakes to cause such act, resolution, approval or other procedure to be affected or adopted in a manner that will enable the Company to fulfill its obligations under this Agreement.

(The remainder of this page is intentionally left blank.)

IN WITNESS WHEREOF, the parties hereto have executed this Indemnification Agreement as of the date first above written.

GRITSTONE ONCOLOGY, INC.

By: _____
AUTHORIZED OFFICER

Address:

5658 Horton Street, Suite 210
Emeryville, CA 94608

AGREED TO AND ACCEPTED BY:

INDEMNITEE:

By: _____
«INDEMNITEE»

Date: «Date»

Address:
«Address»

EXHIBIT A

Form of Undertaking

AFFIRMATION AND UNDERTAKING FOR ADVANCE OF EXPENSES PURSUANT TO SECTION 145(e) OF THE GENERAL CORPORATION LAW OF THE STATE OF DELAWARE

Pursuant to Section 145(e) of the General Corporation Law of the State of Delaware (the "***DGCL***"), Section 9.3 of the Amended and Restated Bylaws (the "***Bylaws***") of Gritstone Oncology, Inc. (the "***Company***"), and Section 3(a) of my Indemnification Agreement with the Company (the "***Indemnification Agreement***"), I understand that I must provide a written undertaking in order for the Company to make Expense Advances to me in connection with [NAME OF PROCEEDING], as well as in any related action, suit or proceeding that is threatened, pending or may be filed in the future in which I am a party, a witness or other participant.

The capitalized terms used herein and not otherwise defined shall have the meanings specified in the Indemnification Agreement.

I hereby affirm my good-faith belief that I have met the standard of conduct for indemnification imposed by Section 145(d) of the DGCL. I affirm that in connection with the matters for which I seek Expense Advances, I have acted in good faith and in a manner I reasonably believed to be in or not opposed to the best interests of the Company, and with respect to any criminal action or proceeding, had no reasonable cause to believe that such conduct was unlawful.

I hereby undertake to repay the Expense Advances if it is ultimately determined that I am not entitled to be indemnified, exonerated or held harmless therefor by the Company under Section 145 of the DGCL, Article IX of the Bylaws or the Indemnification Agreement.

This undertaking is a general, unsecured obligation, and no interest shall be charged hereon.

I have executed this Affirmation and Undertaking on this ____ day of _____, 20__.

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the reference to our firm under the caption "Experts" and "Risk Factors" and to the use of our report dated May 4, 2018 (except for the second paragraph of Note 2, as to which the date is September , 2018), in Amendment No. 1 to the Registration Statement (Form S-1 No. 333-226976) and related Prospectus of Gritstone Oncology, Inc.

Ernst & Young LLP

Redwood City, California

The foregoing consent is in the form that will be signed upon the effectiveness of the reverse stock split described in the second paragraph of Note 2 to the financial statements.

/s/ Ernst & Young LLP

Redwood City, California
September 17, 2018