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Securities and Exchange Commission on , 2018.

Registration No. 333-

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

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

SUTRO BIOPHARMA, INC.
(Exact name of registrant as specified in its charter)

Delaware	2836	47-0926186
(State or other jurisdiction of incorporation or organization)	**(Primary Standard Industrial Classification Code Number)**	**(I.R.S. Employer Identification Number)**

310 Utah Avenue, Suite 150
South San Francisco, CA 94080
(650) 392-8412
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

William J. Newell
Chief Executive Officer
Sutro Biopharma, Inc.
310 Utah Avenue, Suite 150
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(650) 392-8412
(Name, address, including zip code, and telephone number, including area code, of agent for service)

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

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933 check the following box. ☐

If this form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, 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 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" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

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	Proposed Maximum Aggregate Offering Price(1)(2)	Amount of Registration Fee
Common Stock, par value $0.001 per share	$	$

(1) The proposed maximum aggregate offering price includes the offering price of additional shares that the underwriters have the option to purchase.

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

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

EXPLANATORY NOTE

Pursuant to the applicable provisions of the Fixing America's Surface Transportation Act, we are omitting our unaudited financial statements for the three months ended March 31, 2017 and 2018 because they relate to historical periods that we believe will not be required to be included in the prospectus at the time of the contemplated offering. We intend to amend the registration statement to include all financial information required by Regulation S-X at the date of such amendment before distributing a preliminary prospectus to investors.

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

PROSPECTUS (Subject to Completion) **, 2018**

Shares

Common Stock

This is an initial public offering of shares of common stock by Sutro Biopharma, Inc. We are offering shares of our common stock. The initial public offering price is expected to be between $ and $ per share.

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

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

	Per share	*Total*
Initial public offering price	**$**	**$**
Underwriting discounts and commissions(1)	**$**	**$**
Proceeds to Sutro, before expenses	**$**	**$**

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

We have granted the underwriters an option for a period of 30 days to purchase up to additional shares of common stock.

Investing in our common stock involves a high degree of risk. See "Risk Factors" beginning on page 11.

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

The underwriters expect to deliver shares of common stock to purchasers on , 2018.

Joint Book-running Managers

Cowen **Piper Jaffray**

Co-managers

JMP Securities **Wedbush PacGrow**

, 2018

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We have not, and the underwriters have not, authorized anyone to provide any information or to make any representations other than those contained in this prospectus or in any free writing prospectuses we have prepared. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This prospectus is an offer to sell only the shares offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus or in any applicable free writing prospectus is current only as of its date, regardless of its time of delivery or any sale of shares of our common stock.

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

Persons who come into possession of this prospectus and any applicable free writing 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 and any such free writing prospectus applicable to that jurisdiction.

PROSPECTUS SUMMARY

This summary highlights selected information contained elsewhere in this prospectus and does not contain all of the information that you should consider in making your investment decision. Before investing in our common stock, you should carefully read this entire prospectus, including our financial statements and the related notes thereto and the information set forth under the sections entitled "Risk Factors," "Selected Financial Data" and "Management's Discussion and Analysis of Financial Condition and Results of Operations," in each case included in this prospectus. Some of the statements in this prospectus constitute forward-looking statements that involve risks and uncertainties. See the section entitled "Special Note Regarding Forward-Looking Statements." Unless the context otherwise requires, we use the terms "Sutro," "company," "we," "us" and "our" in this prospectus to refer to Sutro Biopharma, Inc.

Overview

We are a clinical stage drug discovery, development and manufacturing company focused on leveraging our proprietary integrated cell-free protein synthesis platform, XpressCF, to create a broad variety of optimally designed, next-generation protein therapeutics for oncology. We aim to design therapeutics using the most potent modalities, including cytokine-based immuno-oncology, or I/O, therapeutics, antibody-drug conjugates, or ADCs, and bispecific antibodies that are directed primarily against clinically validated targets where the current standard of care is suboptimal. We believe our platform allows us to accelerate the discovery and development of potential first-in-class and best-in-class molecules by enabling the rapid and systematic evaluation of protein structure-activity relationships to create optimized homogeneous product candidates. Our mission is to transform the lives of cancer patients by using our XpressCF Platform to create medicines with improved therapeutic profiles for areas of unmet need.

Our two most advanced product candidates are wholly owned: STRO-001, an ADC directed against CD74, for patients with multiple myeloma and non-Hodgkin lymphoma, or NHL, and STRO-002, an ADC directed against folate receptor-alpha, or FolR a, for patients with ovarian and endometrial cancers. STRO-001 is currently enrolling patients in a Phase 1 trial, with initial safety data expected in 2019. We plan to submit an investigational new drug, or IND, application for STRO-002 to the U.S. Food and Drug Administration, or FDA, in the fourth quarter of 2018.

Our Pipeline

Our current product candidates, all based on our proprietary XpressCF Platform, are summarized in the chart below:

(a) For the four Celgene collaboration programs noted in the chart, Celgene currently has ex-U.S. rights and Sutro currently has U.S. rights. Celgene will automatically obtain worldwide rights to the first product candidate to achieve IND clearance in the United States and can obtain worldwide rights to the second product candidate to have an active IND in the United States by making certain payments to us as specified in the Celgene collaboration section.

(b) EMD Serono is the U.S. healthcare business of Merck KGaA, Darmstadt, Germany.

Our first internally developed product candidate is STRO-001, which we believe has the potential to be a first-in-class and best-in-class ADC directed against CD74, an antigen that is highly expressed in many B cell malignancies. In multiple preclinical models, STRO-001 has demonstrated potent anti-tumor activity. In addition, the properties of STRO-001 suggest a low likelihood of off-target toxicity and potential for an improved therapeutic index. STRO-001 is currently enrolling patients in a Phase 1 trial for multiple myeloma and NHL and we expect initial safety data in 2019.

We are also internally developing STRO-002, an ADC directed against FolRa, initially targeted for the treatment of ovarian and endometrial cancers. Our experiments show that FolRa expression can be detected in 90% or more of ovarian and endometrial cancers. In preclinical models, STRO-002 has demonstrated the potential for enhanced and selective activity against cells expressing FolR a, superior inhibition of tumor growth and greater linker stability, in comparison to experiments we conducted with a benchmark FolRa-targeting molecule. We expect to submit an IND for STRO-002 in the fourth quarter of 2018.

Although we believe our product candidates have the potential to be first-in-class and/or best-in-class and to provide potent anti-tumor activity with reduced off-target toxicity, we will need to complete additional studies to determine the safety and efficacy of our product candidates. The results of these future studies may be different than the results of our earlier studies. We have not received regulatory approval for any of our product candidates, and in order to obtain regulatory approval and commercialize our product candidates, the FDA or foreign regulatory agencies will need to determine

that our product candidates are safe and effective. We may not obtain regulatory approval on the timeline we currently expect, or at all, and competing therapies and products may ultimately reach the market faster or have more favorable safety and efficacy profiles than our products candidates.

The benefits of our XpressCF Platform have resulted in collaborations with leaders in the field of oncology, including Celgene Corporation, or Celgene, and Merck KGaA, Darmstadt, Germany (operating in the United States and Canada under the name "EMD Serono"). As the result of discovery efforts enabled through our XpressCF Platform, Celgene has the right to develop up to four anti-cancer bispecific antibodies and/or ADCs. The lead candidate in this collaboration is a novel ADC therapeutic directed against B Cell Maturation Antigen for which an IND submission is expected in early 2019. Under the collaboration with Merck KGaA, Darmstadt, Germany, we are using our XpressCF Platform to discover and develop mono, bispecific or multi-specific ADC product candidates against up to six cancer targets. The most advanced candidate in this collaboration is a bispecific ADC that is currently undergoing preclinical studies. Through March 31, 2018, we have received in aggregate approximately $240 million in payments from all of our collaborations, which includes $18.6 million in investments in our stock. We intend to selectively enter into additional collaborations with partners who are seeking efficient and effective drug discovery, preclinical development and manufacturing capabilities for the creation of novel therapeutics.

Beyond these wholly owned programs and collaborations, we are developing a broader pipeline of next-generation protein therapeutics using our XpressCF Platform. Our protein engineering and chemistry efforts are focused on maximizing therapeutic indices, and our technology allows us to rapidly test our therapeutic hypothesis in significantly more product candidates than conventional protein synthesis allows in order to identify the best molecule to advance to the clinic. Within cytokine-based immuno-oncology therapies, we have an interleukin-2, or IL-2, program for which we anticipate submitting an IND as well as an ongoing discovery program for interleukin-15, or IL-15. We are also actively pursuing the discovery and development of other novel ADC and bispecifics and currently have four ADC and two bispecific T cell-engager discovery programs.

Our Proprietary XpressCF Platform

Our XpressCF Platform is the first and only current Good Manufacturing Practices, or cGMP, compliant scalable cell-free protein synthesis technology that has resulted in products in clinical development. Our XpressCF Platform is fundamentally different from the conventional cell-based protein synthesis approach in that we separate the production of the cell mass from the production of the protein. We believe key advantages of our cell-free protein synthesis platform over conventional biologic drug discovery and development include:

- *Ability to Rapidly Produce and Evaluate a Wide Variety of Protein StructuresIn-house.* By decoupling the production of the cell-free extract from the production of the protein, we are able to stockpile large quantities of cell-free extract from which we are able to manufacture a wide variety of proteins without the need to generate individual cell lines, including cytokine-based immuno-oncology therapeutics, ADCs and bispecific antibodies.
- *Ability to Incorporate Non-Natural Amino Acids.* Our technology allows for efficient incorporation of a non-natural amino acid in any location in an antibody or protein with high precision and fidelity, which we believe allows for the design of optimized protein conjugates.
- *Faster Cycle Time.* Our ability to produce thousands of protein variants in parallel overnight allows us to rapidly express, test and characterize many variants early in discovery to elucidate structure-activity relationships and identify opportunities for superior therapeutic profiles, as well as new intellectual property. We are therefore able to efficiently optimize many properties with high specificity in parallel.

- *Efficient Drug Discovery and Early Pharmacology and Safety Assessment.* Our cell-free technology creates the opportunity for accelerated pharmacology and safety assessments during the design and discovery phase of product development. This approach allows us to generate optimized proteins early in our discovery process, which can be transitioned seamlessly to clinical scale production using the same cell-free process.
- *Rapid and Predictable Scalability*. Our cell-free extract does not need to be modified in any manner as we scale from research to preclinical to clinical to commercial production. This enables us to move more rapidly to the clinic by eliminating master cell banking activities and significantly de-risks scale-up to manufacturing.

We use our XpressCF Platform to discover and develop cancer therapeutics by empirically determining the optimum structure-activity relationships for cytokine-based immuno-oncology therapeutics, ADCs and bispecific antibodies and transitioning those products to cGMP compliant manufacturing. The following chart illustrates the applicability of these attributes across the range of modalities we are developing.

XpressCF Attributes for Various Therapeutic Modalities

XpressCF Attribute	ADCs	Bispecific I/O, Bispecific ADCs and Bispecific T cell-engagers	Cytokine-based therapeutics
Homogeneous Design Stable, site-specific attachment of chemical functionality	✓	✓ (if needed)	✓
Experimentally Defined Structure-Activity Relationships Rapid, direct comparison of a wide variety of protein variants	✓	✓	✓
Rapid and Efficient Transition from Discovery to the Clinic Single-source scalability from discovery to clinical / commercial	✓	✓	✓

Despite recent advancements within the field of oncology, specifically around cytokine-based immuno-oncology therapeutics, ADCs and bispecific antibodies, limitations still exist. The response is often not durable and many patients relapse or become refractory to treatment. Also, safety and tolerability concerns often limit the use of higher, potentially more efficacious doses. We believe our XpressCF Platform will provide enhanced therapeutic approaches for treating cancer to address these unmet needs.

We also intend to selectively expand the scope of our XpressCF Platform into other therapeutic areas. Due to the versatility of our platform, we can explore additional indications outside of oncology, such as autoimmune and metabolic diseases. We intend to promote further investment in and development of our XpressCF Platform to expand our pipeline of product candidates.

Our Strategy

Our goal is to use our proprietary XpressCF Platform to create cytokine-based immuno-oncology therapeutics, ADCs and bispecific antibodies primarily against clinically validated targets. Key elements of our strategy are to:

- *advance STRO-001 and STRO-002 through clinical development;*
- *develop a diverse pipeline of novel product candidates with optimal therapeutic profiles;*
- *strategically pursue additional collaborations to broaden the reach of our XpressCF Platform;*

- *maintain worldwide rights to our core product candidates; and*
- *selectively expand the scope of our XpressCF Platform into other therapeutic areas.*

Risks Affecting Us

Our business is subject to a number of risks and uncertainties, including those highlighted in the section entitled "Risk Factors" immediately following this prospectus summary. These risks include, among others, the following:

- We have a limited operating history, a history of significant losses and may never achieve or maintain profitability.
- We must raise additional funds to finance our operations to remain a going concern.
- Even if we complete this offering, we will need substantial additional funds to advance development of our product candidates and failure to obtain timely funding, may force us to delay, limit or terminate our product development programs, commercialization efforts or other operations.
- Our product candidates are in early stages of development and may fail in development or suffer delays that materially and adversely affect their commercial viability.
- Our business is dependent on the success of our product candidates based on our cell-free protein synthesis platform, XpressCF, and, in particular, our lead product candidates, STRO-001 and STRO-002. Existing and future preclinical studies and clinical trials of our product candidates may not be successful and if we are unable to commercialize our product candidates or experience significant delays in doing so, our business will be materially harmed.
- If we do not achieve our projected development goals in the time frames we announce and expect, the commercialization of our products may be delayed and, as a result, our stock price may decline.
- If our collaborations with third parties for development and commercialization are not successful, we may not be able to capitalize on the market potential of our XpressCF Platform and resulting product candidates.
- If we are not able to obtain and enforce patent protection for our technologies or product candidates, development and commercialization of our product candidates may be adversely affected.
- We or our collaborators may be unable to obtain, or may be delayed in obtaining, U.S. or foreign regulatory approval and, as a result, unable to commercialize our product candidates.

Corporate Information

We were incorporated under the laws of the State of Delaware in April 2003 under the name Fundamental Applied Biology, Inc. We subsequently changed our name to Sutro Biopharma, Inc. Our principal executive offices are located at 310 Utah Avenue, Suite 150, South San Francisco, California 94080, and our telephone number is (650) 392-8412. Our website address is www.sutrobio.com. The information contained on, or that can be accessed through, our website is not part of, and is not incorporated by reference into, this prospectus. Investors should not rely on any such information in deciding whether to purchase our common stock.

The marks "Sutro Biopharma," "XpressCF" and "XpressCF+" are our registered trademarks. The Sutro logo, XtractCF and all product names are our common law trademarks. All other service marks, trademarks and trade names appearing in this prospectus are the property of their respective owners. Solely for convenience, the trademarks and tradenames referred to in this prospectus appear without the ® and ™ symbols, but those references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights, or the right of the applicable licensor to these trademarks and tradenames.

Implications of Being an Emerging Growth Company

As a company with less than $1.07 billion in revenue during our last fiscal year, we qualify as an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012, or JOBS Act. An emerging growth company may take advantage of reduced reporting requirements that are otherwise applicable to public companies. These provisions include, but are not limited to:

- being permitted to present only two years of audited financial statements and only two years of related Management's Discussion and Analysis of Financial Condition and Results of Operations in this prospectus;
- not being required to comply with the auditor attestation requirements on the effectiveness of our internal controls over financial reporting;
- not being required to comply with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor's report providing additional information about the audit and the financial statements (auditor discussion and analysis);
- reduced disclosure obligations regarding executive compensation arrangements; and
- exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved.

We may use these provisions until the last day of our fiscal year following the fifth anniversary of the completion of this offering. However, if certain events occur prior to the end of such five-year period, including if we become a "large accelerated filer," our annual gross revenues exceed $1.07 billion or we issue more than $1.0 billion of non-convertible debt in any three-year period, we will cease to be an emerging growth company prior to the end of such five-year period.

We have elected to take advantage of certain of the reduced disclosure obligations in the registration statement of which this prospectus is a part and may elect to take advantage of other reduced reporting requirements in future filings. As a result, the information that we provide to our stockholders may be different than you might receive from other public reporting companies in which you hold equity interests.

The JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards, until those standards apply to private companies. We have elected to take advantage of the benefits of this extended transition period and, therefore, we will not be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies. Our financial statements may therefore not be comparable to those of companies that comply with such new or revised accounting standards. Until the date that we are no longer an emerging growth company or affirmatively and irrevocably opt out of the exemption provided by Section 7(a)(2)(B) of the Securities Act of 1933, as amended, upon issuance of a new or revised accounting standard that applies to our financial statements and that has a different effective date for public and private companies, we will disclose the date on which adoption is required for non-emerging growth companies and the date on which we will adopt the recently issued accounting standard.

THE OFFERING

Common stock offered	shares
Option to purchase additional shares	We have granted the underwriters an option, exercisable for 30 days after the date of this prospectus, to purchase up to an additional shares from us.
Common stock to be outstanding immediately after this offering	shares (or shares if the underwriters exercise their option to purchase additional shares in full).
Use of proceeds	We estimate that the net proceeds from this offering will be approximately $ million (or approximately $ million if the underwriters exercise their option to purchase additional shares in full), based upon the assumed initial public offering price of $ per share, which is the midpoint of the estimated price range set forth on the cover of this prospectus, after deducting the estimated underwriting discounts and commissions and estimated offering expenses. We intend to use the net proceeds that we receive in this offering to fund the further development of STRO-001 and STRO-002, the further development of our technology platform, including manufacturing, to broaden our pipeline of product candidates and for working capital and general corporate purposes. See the section entitled "Use of Proceeds."
Risk factors	You should read the section entitled "Risk Factors" in this prospectus for a discussion of factors to consider carefully before deciding to invest in shares of our common stock.
Proposed Nasdaq Global Market symbol	"STRO"

The number of shares of our common stock to be outstanding after this offering is based on (i) shares of our common stock outstanding as of March 31, 2018, (ii) the automatic conversion of all 173,750,421 shares or our outstanding redeemable convertible preferred stock as of March 31, 2018 into an aggregate of shares of common stock immediately prior to the completion of this offering and (iii) shares of common stock that we expect to issue, based upon an assumed initial public offering price of $ per share, which is the midpoint of the estimated price range set forth on the cover of this prospectus, upon the net exercise of warrants outstanding as of March 31, 2018 that would otherwise expire upon completion of this offering, and excludes:

- 30,109,208 shares of common stock issuable upon the exercise of options outstanding as of March 31, 2018, with a weighted-average exercise price of $0.29 per share;

- shares of common stock issuable upon the exercise of warrants to purchase 1,370,158 shares of redeemable convertible preferred stock, with a weighted-average exercise price of $0.5693 per share, that will automatically convert to common stock warrants upon the completion of this offering;
- shares of common stock issuable upon the exercise and conversion of a warrant to purchase 170,030 shares of redeemable convertible preferred stock, with an exercise price of $0.8822 per share, that will expire on June 17, 2018; and
- shares of common stock reserved for future issuance under our stock-based compensation plans, consisting of (i) 3,288,989 shares of common stock reserved for future issuance under our 2004 Stock Plan as of March 31, 2018, (ii) shares of common stock reserved for future issuance under our 2018 Equity Incentive Plan, which will become effective on the date immediately prior to the date of this prospectus and (iii) shares of common stock reserved for future issuance under our 2018 Employee Stock Purchase Plan, which will become effective on the date of this prospectus. Upon completion of this offering, any remaining shares available for issuance under our 2004 Stock Plan will be added to the shares reserved under our 2018 Equity Incentive Plan and we will cease granting awards under our 2004 Stock Plan. Our 2018 Equity Incentive Plan and 2018 Employee Stock Purchase Plan also provide for automatic annual increases in the number of shares reserved under the plans each year, as more fully described in "Executive Compensation—Equity Compensation Plans and Other Benefit Plans."

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

- the automatic conversion of all outstanding shares of our redeemable convertible preferred stock as of March 31, 2018 into an aggregate of shares of common stock immediately prior to the completion of this offering;
- the net exercise of outstanding warrants to purchase 1,791,784 shares of redeemable convertible preferred stock and 40,000 shares of common stock immediately prior to the completion of this offering, which will result in the issuance of shares of common stock, based upon an assumed initial public offering price of $ per share, which is the midpoint of the estimated price range set forth on the cover of this prospectus;
- the automatic conversion of outstanding redeemable convertible preferred stock warrants to purchase 1,370,158 shares of redeemable convertible preferred stock into warrants to purchase shares of common stock upon the completion of this offering;
- a -for- reverse stock split, which will become effective prior to the completion of this offering;
- the effectiveness of our restated certificate of incorporation and restated bylaws in connection with the completion of this offering;
- no exercise of outstanding options or warrants after March 31, 2018, other than as described in the second bullet above; and
- no exercise of the underwriters' option to purchase additional shares of our common stock.

Summary Financial Data

The following tables set forth our summary statements of operations and balance sheet data. The summary statements of operations data presented below for the years ended December 31, 2016 and 2017 and the summary balance sheet data as of December 31, 2017 are derived from our audited financial statements included elsewhere in this prospectus. The following summary financial data should be read in conjunction with "Selected Financial Data," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our financial statements and related notes included elsewhere in this prospectus. Our historical results are not necessarily indicative of the results that may be expected in any future period. The summary financial data in this section are not intended to replace the financial statements and are qualified in their entirety by the financial statements and related notes included elsewhere in this prospectus.

	Year Ended December 31,	
	2016	2017
	(in thousands, except share and per share data)	
Statements of Operations Data:		
Collaboration revenue	$ 59,731	$ 51,741
Operating expenses:		
Research and development	43,550	54,639
General and administrative	14,817	16,374
Total operating expenses	58,367	71,013
Income (loss) from operations	1,364	(19,272)
Interest income	251	273
Interest expense	–	(612)
Other income (expense), net	87	(77)
Net income (loss)	$ 1,702	$ (19,688)
Net income (loss) per share attributable to common stockholders, basic and diluted(1)	$ –	$ (1.21)
Weighted-average shares used in computing net income (loss) per share attributable to common stockholders, basic and diluted(1)	14,804,949	16,265,874
Pro forma net loss per share, basic and diluted (unaudited)(1)		$
Weighted-average shares used in computing pro forma net loss per share, basic and diluted (unaudited)(1)		

(1) See Notes 2 and 13 to our financial statements included elsewhere in this prospectus for an explanation of the calculations of our basic and diluted net income (loss) per share attributable to common stockholders, basic and diluted pro forma net loss per share, and the weighted-average number of shares used in the computation of the per share amounts.

	As of December 31, 2017		
	Actual	Pro Forma(1)	Pro Forma As Adjusted(2)(3)
		(unaudited)	
		(in thousands)	
Balance Sheet Data:			
Cash and cash equivalents	$ 22,020	$	$
Working capital (deficit)	(6,327)		
Total assets	40,769		
Debt	14,634		
Redeemable convertible preferred stock warrant liability	1,708		
Redeemable convertible preferred stock	102,505		
Accumulated deficit	(115,011)		
Total stockholders' equity (deficit)	(109,001)		

(1) The pro forma balance sheet data gives effect to (i) the automatic conversion of all outstanding shares of our redeemable convertible preferred stock as of December 31, 2017 into an aggregate of shares of common stock immediately prior to the completion of this offering, (ii) the issuance of shares of common stock that we expect to issue, based upon an assumed initial public offering price of $ per share, which is the midpoint of the estimated price range set forth on the cover of this prospectus, upon the net exercise of warrants outstanding as of December 31, 2017 for the purchase of 1,791,784 shares of redeemable convertible preferred stock and 40,000 shares of common stock that would otherwise expire upon completion of this offering and the related reclassification of redeemable convertible preferred stock warrant liability to total stockholders' equity (deficit), (iii) the conversion of redeemable convertible preferred stock warrants into common stock warrants and the related reclassification of the redeemable convertible preferred stock warrant liability to total stockholders' equity (deficit) and (iv) the repayment of principal and interest on a $0.2 million outstanding note issued to an executive officer.

(2) The pro forma as adjusted balance sheet data gives effect to (i) the pro forma adjustments described in footnote (1) above and (ii) the receipt of $ million in net proceeds from the sale of shares of common stock in this offering, based upon an assumed initial public offering price of $ per share, which is the midpoint of the estimated price range set forth on the cover of this prospectus, after deducting the estimated underwriting discounts and commissions and estimated offering expenses.

(3) Each $1.00 increase (decrease) in the assumed initial public offering price of $ per share, which is the midpoint of the estimated price range set forth on the cover of this prospectus, would increase (decrease) each of our pro forma as adjusted cash and cash equivalents, working capital, total assets and total stockholders' equity (deficit) by approximately $ million, assuming that the number of shares offered, as set forth on the cover of this prospectus, remains the same and after deducting the estimated underwriting discounts and commissions. Similarly, each increase (decrease) of 1,000,000 shares in the number of shares of common stock offered would increase (decrease) each of our pro forma as adjusted cash and cash equivalents, working capital, total assets and total stockholders' equity (deficit) by approximately $ million, assuming the assumed initial public offering price per share as set forth on the cover of this prospectus remains the same and after deducting the estimated underwriting discounts and commissions. The pro forma as adjusted information is illustrative only, and we will adjust this information based on the actual initial public offering price and other terms of this offering determined at pricing.

RISK FACTORS

Investing in our common stock involves a high degree of risk. Before making your decision to invest in shares of our common stock, you should carefully consider the risks described below, together with the other information contained in this prospectus, including our financial statements and the related notes appearing at the end of this prospectus. We cannot assure you that any of the events discussed below will not occur. These events could have a material and adverse impact on our business, financial condition, results of operations and prospects. If that were to happen, the trading price of our common stock could decline, and you could lose all or part of your investment.

Risks Related to Our Business

We are a clinical stage biopharmaceutical company with a limited operating history and no products approved for commercial sale. We have a history of significant losses, expect to continue to incur significant losses for the foreseeable future and may never achieve or maintain profitability, which could result in a decline in the market value of our common stock.

We are a clinical stage biopharmaceutical company with a limited operating history on which to base your investment decision. Biotechnology product development is a highly speculative undertaking and involves a substantial degree of risk.

To date, we have tested our first clinical stage product candidate, STRO-001, in only a few clinical trial patients, have no products approved for commercial sale, have not generated any revenue from commercial product sales and, as of December 31, 2017, had an accumulated deficit of $115.0 million. For the year ended December 31, 2017, our net loss was $19.7 million and for the year ended December 31, 2016, our net income was $1.7 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. Our technologies and product candidates are in early stages of development, and we are subject to the risks of failure inherent in the development of product candidates based on novel technologies. In addition, we have limited experience as a clinical stage company 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 biotechnology industry. Furthermore, we do not expect to generate any revenue from commercial product sales for the foreseeable future, and we expect to continue to incur significant operating losses for the foreseeable future due to the cost of research and development, preclinical studies and clinical trials and the regulatory approval process for our product candidates. We expect our net losses to increase substantially as we progress further into clinical development of our lead programs and create additional infrastructure to support operations as a public company. However, the amount of our future losses is uncertain. Our ability to achieve profitability, if ever, will depend on, among other things, our, or our existing or future collaborators', successful development of product candidates, obtaining regulatory approvals to market and commercialize product candidates, manufacturing any approved products on commercially reasonable terms, establishing a sales and marketing organization or suitable third-party alternatives for any approved product and raising sufficient funds to finance business activities. If we, or our existing or future collaborators, are unable to develop our technologies and commercialize one or more of our product candidates or if sales revenue from any product candidate that receives approval is insufficient, we will not achieve profitability, which could have a material and adverse effect on our business, financial condition, results of operations and prospects. Even if we achieve profitability in the future, we may not be able to sustain profitability in subsequent periods.

Management concluded that factors raise substantial doubt about our ability to continue as a going concern and our independent registered public accounting firm has included an explanatory paragraph relating to our ability to continue as a going concern in its report on our audited financial statements included in this prospectus.

Our financial statements at December 31, 2016 and 2017 were prepared assuming that we will continue as a going concern and, accordingly, the financial statements included elsewhere in this prospectus do not include any adjustments that might be necessary should we be unable to continue as a going concern. However, we do not have adequate cash and cash equivalents to fund our anticipated expenses for the next 12 months without obtaining significant additional financing and/or decreasing our expenses substantially. This raises substantial doubt about our ability to continue as a going concern. Such determination could materially limit our ability to raise additional funds through the issuance of new debt or equity securities or otherwise. There is no assurance that sufficient financing will be available when needed to allow us to continue as a going concern. The perception that we may not be able to continue as a going concern may also make it more difficult to operate our business due to concerns about our ability to meet our contractual obligations. Our ability to continue as a going concern is contingent upon, among other factors, the sale of shares of common stock in this offering or obtaining alternate financing. We cannot provide any assurance that we will be able to raise additional capital. If we are unable to secure additional capital, we may be required to curtail our research and development initiatives and take additional measures to reduce costs in order to conserve our cash in amounts sufficient to sustain operations and meet our obligations. These measures could cause significant delays in our preclinical and clinical efforts, which is critical to the realization of our business plan. It is not possible for us to predict at this time the potential success of our business. The revenue and income potential of our proposed business and operations are currently unknown. If we cannot continue as a viable entity, you may lose some or all of your investment.

In addition, the report of our independent registered public accounting firm with respect to our financial statements included elsewhere in this prospectus contains an explanatory paragraph stating that we have suffered recurring losses from operations, have a working capital deficiency and have stated that substantial doubt exists about our 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 1 to the financial statements included elsewhere in this prospectus.

Even if we complete this offering, we will need substantial additional funds to advance development of our product candidates. This additional financing may not be available on acceptable terms, or at all. Failure to obtain this necessary capital when needed may force us to delay, limit or terminate our product development programs, commercialization efforts or other operations.

The development of biopharmaceutical product candidates is capital-intensive. If our product candidates enter and advance through preclinical studies and clinical trials, we will need substantial additional funds to expand our development, regulatory, manufacturing, marketing and sales capabilities. We have used substantial funds to develop our technology and product candidates and will require significant funds to conduct further research and development and preclinical testing and clinical trials of our product candidates, to seek regulatory approvals for our product candidates and to manufacture and market products, if any, which are approved for commercial sale. In addition, upon the completion of this offering, we expect to incur additional costs associated with operating as a public company.

Since our inception, we have invested a significant portion of our efforts and financial resources in research and development activities for our two product candidates STRO-001, our primary clinical program, and STRO-002, our late-stage preclinical program, and the development of our in-house manufacturing capabilities. Clinical trials for our product candidates will require substantial funds to

complete. As of December 31, 2017, we had $22.0 million in cash and cash equivalents. We expect to incur substantial expenditures in the foreseeable future as we seek to advance STRO-001 and STRO-002 and any future product candidates through clinical development, the regulatory approval process and, if approved, commercial launch activities, as well as in connection with the continued development of our manufacturing capabilities. Based on our current operating plan, we believe that our available cash and cash equivalents, together with the net proceeds from this offering, will be sufficient to fund our operations through at least the next 12 months. However, our future capital requirements and the period for which we expect our existing resources to support our operations may vary significantly from what we expect and we may need to seek additional funds sooner than planned. Our monthly spending levels vary based on new and ongoing research and development and other corporate activities. Because the length of time and activities associated with successful research and development of our product candidates is highly uncertain, we are unable to estimate the actual funds we will require for development and any marketing and commercialization activities for approved products. The timing and amount of our operating expenditures will depend largely on:

- the timing and progress of preclinical and clinical development activities;
- the costs associated with the development of our internal manufacturing facility and processes;
- the number and scope of preclinical and clinical programs we decide to pursue;
- the progress of the development efforts of parties with whom we have entered or may in the future enter into collaborations and research and development agreements;
- the timing and amount of milestone and other payments we may receive under our collaboration agreements;
- our ability to maintain our current licenses and research and development programs and to establish new collaboration arrangements;
- the costs involved in prosecuting and enforcing patent and other intellectual property claims;
- the costs of manufacturing our product candidates and those of our collaborators using our proprietary XpressCF Platform;
- the cost and timing of regulatory approvals;
- the cost of commercialization activities if our product candidates or any future product candidates are approved for sale, including marketing, sales and distribution costs; and
- our efforts to enhance operational systems and hire additional personnel, including personnel to support development of our product candidates and satisfy our obligations as a public company.

If we are unable to obtain funding on a timely basis or on acceptable terms, we may have to delay, reduce or terminate our research and development programs and preclinical studies or clinical trials, limit strategic opportunities or undergo reductions in our workforce or other corporate restructuring activities. We also could be required to seek funds through arrangements with collaborators or others that may require us to relinquish rights to some of our technologies or product candidates that we would otherwise pursue on our own. We do not expect to realize revenue from sales of commercial products or royalties from licensed products in the foreseeable future, if at all, and, in no event, before our product candidates are clinically tested, approved for commercialization and successfully marketed. To date, we have primarily financed our operations through payments received under our collaboration agreements, the sale of equity securities and debt financing. We will be required to seek additional funding in the future and currently intend to do so through additional collaborations and/or licensing agreements, 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. Subject to limited exceptions, the Loan and Security Agreement prohibits us from incurring indebtedness without the prior written consent of Oxford

and SVB. 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. 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, as a condition to providing additional funds to us, future investors may demand, and may be granted, rights superior to those of existing stockholders. Our current debt financing involves, and future debt financings, if available, are 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. Failure to obtain capital when needed on acceptable terms may force us to delay, limit or terminate our product development and commercialization of our current or future product candidates, which could have a material and adverse effect on our business, financial condition, results of operations and prospects.

Our product candidates are in early stages of development and may fail in development or suffer delays that materially and adversely affect their commercial viability. If we or our collaborators are unable to complete development of or commercialize our product candidates or experience significant delays in doing so, our business will be materially harmed.

We have no products on the market and all of our product candidates for cancer therapy are in early stages of development. In particular, our most advanced product candidate, STRO-001, is in the initial stages of dose escalation in clinical trial patients. Our ability to achieve and sustain profitability depends on obtaining regulatory approvals for and successfully commercializing our product candidates, either alone or with third parties, and we cannot guarantee you that we will ever obtain regulatory approval for any of our product candidates. We have limited experience in conducting and managing the clinical trials necessary to obtain regulatory approvals, including approval by the U.S. Food and Drug Administration, or FDA. Before obtaining regulatory approval for the commercial distribution of our product candidates, we or an existing or future collaborator must conduct extensive preclinical tests and clinical trials to demonstrate the safety and efficacy in humans of our product candidates.

We may not have the financial resources to continue development of, or to modify existing or enter into new collaborations for, a product candidate if we experience any issues that delay or prevent regulatory approval of, or our ability to commercialize, product candidates, including:

- negative or inconclusive results from our clinical trials or the clinical trials of others for product candidates similar to ours, leading to a decision or requirement to conduct additional preclinical testing or clinical trials or abandon a program;
- product-related side effects experienced by patients in our clinical trials or by individuals using drugs or therapeutic biologics similar to our product candidates;
- difficulty achieving successful continued development of our internal manufacturing processes, including process development andscale-up activities to supply products for preclinical studies, clinical trials and commercial sale;
- our inability to transfer successfully our manufacturing techniques to third-party contract manufacturers;
- inability of us or any third-party contract manufacturer to scale up manufacturing of our product candidates and those of our collaborators to supply the needs of clinical trials and commercial sales, and to manufacture such products in conformity with regulatory requirements using our proprietary XpressCF Platform;
- delays in submitting investigational new drug applications, or INDs, or comparable foreign applications or delays or failures in obtaining the necessary approvals from regulators to commence a clinical trial, or a suspension or termination of a clinical trial once commenced;

- conditions imposed by the FDA or comparable foreign authorities regarding the scope or design of our clinical trials;
- delays in enrolling patients in our clinical trials;
- high drop-out rates of our clinical trial patients;
- inadequate supply or quality of product candidate components or materials or other supplies necessary for the conduct of our clinical trials;
- inability to obtain alternative sources of supply for which we have a single source for product candidate components or materials;
- greater than anticipated costs of our clinical trials;
- harmful side effects or inability of our product candidates to meet efficacy endpoints during clinical trials;
- failure to demonstrate a benefit-risk profile acceptable to the FDA or other regulatory agencies;
- unfavorable FDA or other regulatory agency inspection and review of one or more of our clinical trial sites or manufacturing facilities;
- failure of our third-party contractors or investigators to comply with regulatory requirements or otherwise meet their contractual obligations in a timely manner, or at all;
- delays and changes in regulatory requirements, policy and guidelines, including the imposition of additional regulatory oversight around clinical testing generally or with respect to our technology in particular; or
- varying interpretations of our data by the FDA and similar foreign regulatory agencies.

We or our collaborators' inability to complete development of or commercialize our product candidates or significant delays in doing so due to one or more of these factors, could have a material and adverse effect on our business, financial condition, results of operations and prospects.

Our business is dependent on the success of our product candidates based on our proprietary XpressCF Platform and, in particular, our lead product candidates, STRO-001 and STRO-002. Existing and future preclinical studies and clinical trials of our product candidates may not be successful. If we are unable to commercialize our product candidates or experience significant delays in doing so, our business will be materially harmed.

We have invested a significant portion of our efforts and financial resources in the development of our proprietary XpressCF Platform and our lead product candidates, STRO-001 and STRO-002. Our ability to generate commercial product revenues, which we do not expect will occur for many years, if ever, will depend heavily on the successful development and eventual commercialization of STRO-001 and STRO-002. We have not previously submitted a new drug application, or NDA, or 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, our 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 our product candidates, our revenues 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 for 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 approvals generally is similar in other countries, in order to obtain separate regulatory approvals 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 success of STRO-001 and STRO-002 and our other product candidates will depend on many factors, including the following:

- successful enrollment of patients in, and the completion of, our clinical trials;
- receiving required regulatory approvals for the development and commercialization of our product candidates;
- establishing our commercial manufacturing capabilities or making arrangements with third-party manufacturers;
- obtaining and maintaining patent and trade secret protection and non-patent exclusivity for our product candidates and their components;
- enforcing and defending our intellectual property rights and claims;
- achieving desirable therapeutic properties for our product candidates' intended indications;
- launching commercial sales of our product candidates, if and when approved, whether alone or in collaboration with third parties;
- acceptance of our product candidates, if and when approved, by patients, the medical community and third-party payors;
- effectively competing with other therapies; and
- maintaining an acceptable safety profile of our product candidates through clinical trials and following regulatory approval.

If we do not achieve one or more of these factors in a timely manner or at all, we could experience significant delays or an inability to successfully commercialize our product candidates, which would materially harm our business.

Additionally, we have created a benchmark folate receptor-alpha, or FolR a, targeting ADC using conventional technology that results in a heterogeneous ADC mixture. We have compared STRO-002 to this benchmark molecule in multiple preclinical models. We believe the results of these tests help us understand how the therapeutic index of STRO-002 compares to competitors. However, we cannot be certain that our benchmark molecule is the same as the molecule we are attempting to recreate, and the results of the tests comparing our benchmark molecule to STRO-002 may be different than the actual results of a head-to-head test of STRO-002 against a competitor molecule. Additional preclinical and clinical testing will be needed to evaluate the therapeutic index of STRO-002 and to understand its therapeutic potential relative to other product candidates in development. While we believe our ADCs may be superior to other investigative agents in development, without head-to-head comparative data, we will not be able to make claims of superiority to other products in our promotional materials, if our product candidates are approved.

If we do not achieve our projected development goals in the time frames we announce and expect, the commercialization of our products may be delayed and, as a result, our stock price may decline.

From time to time, we estimate the timing of the anticipated accomplishment of various scientific, clinical, regulatory and other product development goals, which we sometimes refer to as milestones. These milestones may include the commencement or completion of scientific studies and clinical trials and the submission of regulatory filings. From time to time, we may publicly announce the expected timing of some of these milestones. All of these milestones are and will be based on numerous assumptions. The actual timing of these milestones can vary dramatically compared to our estimates,

in some cases for reasons beyond our control. If we do not meet these milestones as publicly announced, or at all, the commercialization of our products may be delayed or never achieved and, as a result, our stock price may decline.

Our approach to the discovery and development of our therapeutic treatments is based on novel technologies that are unproven and may not result in marketable products.

We are developing a pipeline of product candidates using our proprietary XpressCF Platform. We believe that product candidates identified with our product discovery platform may offer an improved therapeutic approach by taking advantage of precision design and rapid empirical optimization, thereby reducing the dose-limiting toxic effects associated with existing products. However, the scientific research that forms the basis of our efforts to develop product candidates based on our XpressCF Platform is ongoing. Further, the scientific evidence to support the feasibility of developing therapeutic treatments based on our XpressCF Platform is both preliminary and limited.

To date, we have tested our first clinical stage product candidate, STRO-001, in only a few clinical trial patients. We may ultimately discover that our XpressCF Platform and any product candidates resulting therefrom do not possess certain properties required for therapeutic effectiveness. XpressCF product candidates may also be unable to remain stable in the human body for the period of time required for the drug to reach the target tissue or they may trigger immune responses that inhibit the ability of the product candidate to reach the target tissue or that cause adverse side effects in humans. We currently have only limited data, and no conclusive evidence, to suggest that we can introduce these necessary properties into these product candidates derived from our XpressCF Platform. We may spend substantial funds attempting to introduce these properties and may never succeed in doing so. In addition, product candidates based on our XpressCF Platform may demonstrate different chemical and pharmacological properties in patients than they do in laboratory studies. Although our XpressCF Platform and certain product candidates have produced successful results in animal studies, they may not demonstrate the same chemical and pharmacological properties in humans and may interact with human biological systems in unforeseen, ineffective or harmful ways. As a result, we may never succeed in developing a marketable product, we may not become profitable and the value of our common stock will decline.

The regulatory approval process for novel product candidates such as ours can be more expensive and take longer than for other, better known or extensively studied product candidates. We are not aware of any company currently developing a therapeutic using our approach to ADC development and no regulatory authority has granted approval for such a therapeutic. We believe the FDA has limited experience with therapeutics in oncology or other disease areas developed in cell-free-based synthesis systems, which may increase the complexity, uncertainty and length of the regulatory approval process for our product candidates. For example, our XpressCF ADC product candidates contain cleavable or non-cleavable linker-warhead combinations or novel warheads that may result in unforeseen events when administered in a human. We and our existing or future collaborators may never receive approval to market and commercialize any product candidate. Even if we or an existing or future collaborator obtains regulatory approval, the approval may be for targets, disease indications or patient populations that are not as broad as we intended or desired or may require labeling that includes significant use or distribution restrictions or safety warnings. We or an existing or future collaborator 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 the products resulting from our XpressCF Platform prove to be ineffective, unsafe or commercially unviable, our entire platform and pipeline would have little, if any, value, which would have a material and adverse effect on our business, financial condition, results of operations and prospects.

Results of preclinical studies and early clinical trials may not be predictive of results of future clinical trials.

The outcome of preclinical studies and early clinical trials may not be predictive of the success of later clinical trials, and interim results of clinical trials do not necessarily predict success in future clinical trials. Many companies in the pharmaceutical and biotechnology industries have suffered significant setbacks in late-stage clinical trials after achieving positive results in earlier development, and we could face similar setbacks. The design of a clinical trial can determine whether its results will support approval of a product and flaws in the design of a clinical trial may not become apparent until the clinical trial is well advanced. We have limited experience in designing clinical trials and may be unable to design and execute a clinical trial to support marketing approval. In addition, preclinical and clinical data are often susceptible to varying interpretations and analyses. Many companies that believed their product candidates performed satisfactorily in preclinical studies and clinical trials have nonetheless failed to obtain marketing approval for the product candidates. Even if we, or future collaborators, believe that the results of clinical trials for our product candidates warrant marketing approval, the FDA or comparable foreign regulatory authorities may disagree and may not grant marketing approval of our product candidates.

In some instances, there can be significant variability in safety or efficacy results between different clinical trials of the same product candidate due to numerous factors, including changes in trial procedures set forth in protocols, differences in the size and type of the patient populations, changes in and adherence to the dosing regimen and other clinical trial protocols and the rate of dropout among clinical trial patients. If we fail to receive positive results in clinical trials of our product candidates, the development timeline and regulatory approval and commercialization prospects for our most advanced product candidates, and, correspondingly, our business and financial prospects would be negatively impacted.

The market may not be receptive to our product candidates based on a novel therapeutic modality, and we may not generate any future revenue from the sale or licensing of product candidates.

Even if regulatory approval is obtained for a product candidate, we may not generate or sustain revenue from sales of the product due to factors such as whether the product can be sold at a competitive cost and whether it will otherwise be accepted in the market. Historically, there have been concerns regarding the safety and efficacy of ADCs, and an ADC drug was voluntarily withdrawn from the market. These historical concerns may negatively impact the perception market participants have on ADCs, including our product candidates. Additionally, the product candidates that we are developing are based on our proprietary XpressCF Platform, which is a new technology. Market participants with significant influence over acceptance of new treatments, such as physicians and third- party payors, may not adopt an ADC product, or a product or treatment based on our novel cell-free production technologies, and we may not be able to convince the medical community and third-party payors to accept and use, or to provide favorable reimbursement for, any product candidates developed by us or our existing or future collaborators. Market acceptance of our product candidates will depend on, among other factors:

- the timing of our receipt of any marketing and commercialization approvals;
- the terms of any approvals and the countries in which approvals are obtained;
- the safety and efficacy of our product candidates;
- the prevalence and severity of any adverse side effects associated with our product candidates;
- limitations or warnings contained in any labeling approved by the FDA or other regulatory authority;
- relative convenience and ease of administration of our product candidates;

- the willingness of patients to accept any new methods of administration;
- the success of our physician education programs;
- the availability of coverage and adequate reimbursement from government and third-party payors;
- the pricing of our products, particularly as compared to alternative treatments; and
- the availability of alternative effective treatments for the disease indications our product candidates are intended to treat and the relative risks, benefits and costs of those treatments.

Because our product candidates are based on new technology, we expect that they will require extensive research and development and have substantial manufacturing and processing costs. In addition, our estimates regarding potential market size for any indication may be materially different from what we discover to exist at the time we commence commercialization, if any, for a product, which could result in significant changes in our business plan and have a material adverse effect on our business, financial condition, results of operations and prospects. Moreover, if any product candidate we commercialize fails to achieve market acceptance, it could have a material and adverse effect on our business, financial condition, results of operations and prospects.

We have entered, and may in the future seek to enter, into collaborations with third parties for the development and commercialization of our product candidates using our XpressCF Platform. If we fail to enter into such collaborations, or such collaborations are not successful, we may not be able to capitalize on the market potential of our XpressCF Platform and resulting product candidates.

Since 2014, we have entered into collaborations with Celgene Corporation, or Celgene, and Merck KGaA, Darmstadt, Germany (operating in the United States and Canada under the name “EMD Serono”), or Merck KGaA, Darmstadt, Germany, to develop certain cancer therapeutics. In addition, we may in the future seek third-party collaborators for research, development and commercialization of other therapeutic technologies or product candidates. Biopharmaceutical companies are our prior and likely future collaborators for any marketing, distribution, development, licensing or broader collaboration arrangements. With respect to our existing collaboration agreements, and what we expect will be the case with any future collaboration agreements, we have and would expect to have limited control over the amount and timing of resources that our collaborators dedicate to the development or commercialization of our product candidates. Moreover, our ability to generate revenues from these arrangements will depend on our collaborators’ abilities to successfully perform the functions assigned to them in these arrangements.

Collaborations involving our product candidates currently pose, and will continue to pose, the following risks to us:

- collaborators have significant discretion in determining the efforts and resources that they will apply to these 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 preclinical studies or clinical trial results, changes in the collaborators’ strategic focus or available funding, or external factors such as an acquisition that diverts resources or creates competing priorities;
- collaborators may delay clinical trials, provide insufficient funding for a clinical trial program, stop a clinical trial or 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 product candidates if the collaborators believe that competitive

products are more likely to be successfully developed or can be commercialized under terms that are more economically attractive than ours;

- collaborators with marketing and distribution rights to one or more products may not commit sufficient resources to the marketing and distribution of such product or products;
- 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;
- collaborators may infringe the intellectual property rights of third parties, which may expose us to litigation and potential liability;
- disputes may arise between the collaborators and us that result in the delay or termination of the research, development or commercialization of our product candidates or that result in costly litigation or arbitration that diverts management attention and resources; and
- collaborations may be terminated and, if terminated, may result in a need for additional capital to pursue further development or commercialization of the applicable product candidates.

As a result of the foregoing, our current and any future collaboration agreements may not lead to development or commercialization of our product candidates in the most efficient manner or at all. Moreover, if a collaborator of ours were to be involved in a business combination, the continued pursuit and emphasis on our product development or commercialization program could be delayed, diminished or terminated. Any failure to successfully develop or commercialize our product candidates pursuant to our current or any future collaboration agreements could have a material and adverse effect on our business, financial condition, results of operations and prospects.

To date, no product developed on a cell-free manufacturing platform has received approval from the FDA, so the requirements for the manufacturing of products using our XpressCF Platform are uncertain.

We have invested in our own current Good Manufacturing Practices, or cGMP, compliant manufacturing facility in San Carlos, California. In this facility, we are developing and implementing novel cell-free production technologies to supply our planned preclinical and clinical trials. However, before we may initiate a clinical trial or commercialize any of our product candidates, we must demonstrate to the FDA that the chemistry, manufacturing and controls for our product candidates meet applicable requirements, and in the European Union, or EU, a manufacturing authorization must be obtained from the appropriate EU regulatory authorities. Because no product manufactured on a cell-free manufacturing platform has yet been approved in the United States, there is no manufacturing facility that has demonstrated the ability to comply with FDA requirements, and, therefore, the timeframe for demonstrating compliance to the FDA's satisfaction is uncertain. Delays in establishing that our manufacturing process and facility comply with cGMPs or disruptions in our manufacturing processes, implementation of novel in-house technologies or scale-up activities, may delay or disrupt our development efforts.

We expect that development of our own manufacturing facility will provide us with enhanced control of material supply for preclinical studies, clinical trials and the commercial market, enable the more rapid implementation of process changes and allow for better long-term margins. However, we have limited experience as a company in establishing and operating a manufacturing facility and there exist only a small number of contract manufacturing organizations, or CMOs, with the experience necessary to manufacture our product candidates. We may have difficulty hiring experts for internal manufacturing or finding and maintaining relationships with external CMOs and, accordingly, our production capacity could be limited.

Our existing collaborations with Celgene and Merck KGaA, Darmstadt, Germany are important to our business. If our collaborators cease development efforts under our existing or future collaboration agreements, or if any of those agreements are terminated, these collaborations may fail to lead to commercial products and we may never receive milestone payments or future royalties under these agreements.

We have entered into collaborations with other biotechnology companies to develop several of our product candidates, and such collaborations currently represent a significant portion of our product pipeline. Substantially all of our revenue to date has been derived from our existing collaboration agreements with Celgene and Merck KGaA, Darmstadt, Germany, and a significant portion of our future revenue and cash resources is expected to be derived from these agreements or other similar agreements into which we may enter in the future. Revenue from research and development collaborations depends upon continuation of the collaborations, payments for research and development services and product supply, and the achievement of milestones, contingent payments and royalties, if any, derived from future products developed from our research. If we are unable to successfully advance the development of our product candidates or achieve milestones, revenue and cash resources from milestone payments under our collaboration agreements will be substantially less than expected.

We are unable to predict the success of our collaborations and we may not realize the anticipated benefits of our strategic collaborations. Our collaborators have discretion in determining and directing the efforts and resources, including the ability to discontinue all efforts and resources, they apply to the development and, if approval is obtained, commercialization and marketing of the product candidates covered by such collaborations. As a result, our collaborators may elect to de-prioritize our programs, change their strategic focus or pursue alternative technologies in a manner that results in reduced, delayed or no revenue to us. Our collaborators may have other marketed products and product candidates under collaboration with other companies, including some of our competitors, and their corporate objectives may not be consistent with our best interests. Our collaborators may also be unsuccessful in developing or commercializing our products. If our collaborations are unsuccessful, our business, financial condition, results of operations and prospects could be adversely affected. In addition, any dispute or litigation proceedings we may have with our collaborators in the future could delay development programs, create uncertainty as to ownership of intellectual property rights, distract management from other business activities and generate substantial expense.

Moreover, to the extent that any of our existing or future collaborators were to terminate a collaboration agreement, we may be forced to independently develop these product candidates, including funding preclinical studies or clinical trials, assuming marketing and distribution costs and defending intellectual property rights, or, in certain instances, abandon product candidates altogether, any of which could result in a change to our business plan and have a material adverse effect on our business, financial condition, results of operations and prospects.

We may not successfully engage in strategic transactions, including any additional collaborations we seek, which could adversely affect our ability to develop and commercialize product candidates, impact our cash position, increase our expenses and present significant distractions to our management.

From time to time, we may consider strategic transactions, such as additional collaborations, acquisitions of companies, asset purchases and out- or in-licensing of product candidates or technologies that we believe will complement or augment our existing business. In particular, we will evaluate and, if strategically attractive, seek to enter into additional collaborations, including with major biotechnology or biopharmaceutical companies. The competition for collaborators is intense, and the negotiation process is time-consuming and complex. Any new collaboration may be on terms that are not optimal for us, and we may not be able to maintain any new collaboration if, for example,

development or approval of a product candidate is delayed, sales of an approved product candidate do not meet expectations or the collaborator terminates the collaboration. In addition, there have been a significant number of recent business combinations among large pharmaceutical companies that have resulted in a reduced number of potential future strategic partners. Our ability to reach a definitive agreement for a collaboration will depend, among other things, upon our assessment of the strategic partner's resources and expertise, the terms and conditions of the proposed collaboration and the proposed strategic partner's evaluation of a number of factors. These factors may include the design or results of clinical trials, the likelihood of approval by the FDA or similar regulatory authorities outside the United States, the potential market for the subject product candidate, the costs and complexities of manufacturing and delivering such product candidate to patients, the potential of competing products, the existence of uncertainty with respect to our ownership of technology, which can exist if there is a challenge to such ownership without regard to the merits of the challenge and industry and market conditions generally. Moreover, if we acquire assets with promising markets or technologies, we may not be able to realize the benefit of acquiring such assets due to an inability to successfully integrate them with our existing technologies and we may encounter numerous difficulties in developing, manufacturing and marketing any new products resulting from a strategic acquisition that delay or prevent us from realizing their expected benefits or enhancing our business.

We cannot assure you that following any such collaboration, or other strategic transaction, we will achieve the expected synergies to justify the transaction. For example, such transactions may require us to incur non-recurring or other charges, increase our near- and long-term expenditures and pose significant integration or implementation challenges or disrupt our management or business. These transactions would entail numerous operational and financial risks, including exposure to unknown liabilities, disruption of our business and diversion of our management's time and attention in order to manage a collaboration or develop acquired products, product candidates or technologies, incurrence of substantial debt or dilutive issuances of equity securities to pay transaction consideration or costs, higher than expected collaboration, acquisition or integration costs, write-downs of assets or goodwill or impairment charges, increased amortization expenses, difficulty and cost in facilitating the collaboration or combining the operations and personnel of any acquired business, impairment of relationships with key suppliers, manufacturers or customers of any acquired business due to changes in management and ownership and the inability to retain key employees of any acquired business. Also, such strategic alliance, joint venture or acquisition may be prohibited. For example, our Loan and Security Agreement restricts our ability to pursue certain mergers, acquisitions, amalgamations or consolidations that we may believe to be in our best interest.

Accordingly, although there can be no assurance that we will undertake or successfully complete any transactions of the nature described above, any transactions that we do complete may be subject to the foregoing or other risks and would have a material and adverse effect on our business, financial condition, results of operations and prospects. Conversely, any failure to enter any additional collaboration or other strategic transaction that would be beneficial to us could delay the development and potential commercialization of our product candidates and have a negative impact on the competitiveness of any product candidate that reaches market.

We expect to rely on third parties to conduct certain of our preclinical studies or clinical trials. If those third parties do not perform as contractually required, fail to satisfy regulatory or legal requirements or miss expected deadlines, our development program could be delayed with potentially material and adverse effects on our business, financial condition, results of operations and prospects.

We have relied in some cases and intend to rely in the future on third-party clinical investigators, clinical research organizations, or CROs, clinical data management organizations and consultants to assist or provide the design, conduct, supervision and monitoring of preclinical studies and clinical trials of our product candidates. Because we intend to rely on these third parties and will not have the

ability to conduct all preclinical studies or clinical trials independently, we will have less control over the timing, quality and other aspects of preclinical studies and clinical trials than we would have had we conducted them on our own. These investigators, CROs and consultants will not be our employees and we will have limited control over the amount of time and resources that they dedicate to our programs. These third parties may have contractual relationships with other entities, some of which may be our competitors, which may draw time and resources from our programs. The third parties with which we may contract might not be diligent, careful or timely in conducting our preclinical studies or clinical trials, resulting in the preclinical studies or clinical trials being delayed or unsuccessful.

If we cannot contract with acceptable third parties on commercially reasonable terms, or at all, or if these third parties do not carry out their contractual duties, satisfy legal and regulatory requirements for the conduct of preclinical studies or clinical trials or meet expected deadlines, our clinical development programs could be delayed and otherwise adversely affected. In all events, we will be responsible for ensuring that each of our preclinical studies and clinical trials are conducted in accordance with the general investigational plan and protocols for the trial. The FDA requires preclinical studies to be conducted in accordance with good laboratory practices and clinical trials to be conducted in accordance with good clinical practices, including for designing, conducting, recording and reporting the results of preclinical studies and clinical trials to assure that data and reported results are credible and accurate and that the rights, integrity and confidentiality of clinical trial participants are protected. Our reliance on third parties that we do not control will not relieve us of these responsibilities and requirements. Any adverse development or delay in our preclinical studies or clinical trials as a result of our reliance on third parties could have a material and adverse effect on our business, financial condition, results of operations and prospects.

If we are unable to obtain sufficient raw and intermediate materials on a timely basis or if we experience other manufacturing or supply difficulties, our business may be adversely affected.

The manufacture of certain of our product candidates requires the timely delivery of sufficient amounts of raw and intermediate materials. We work closely with our suppliers to ensure the continuity of supply, but cannot guarantee these efforts will always be successful. Further, while efforts are made to diversify our sources of raw and intermediate materials, in certain instances we acquire raw and intermediate materials from a sole supplier. While we believe that alternative sources of supply exist where we rely on sole supplier relationships, there can be no assurance that we will be able to quickly establish additional or replacement sources for some materials. A reduction or interruption in supply, and an inability to develop alternative sources for such supply, could adversely affect our ability to manufacture our product candidates in a timely or cost-effective manner.

We currently manufacture a portion of our product candidates internally and also rely on third-party manufacturing and supply partners to supply components of our product candidates. Our inability to manufacture sufficient quantities of our 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 business strategy. To ensure timely and consistent product supply we currently use a hybrid product supply approach wherein certain elements of our product candidates are manufactured internally at our manufacturing facilities in San Carlos, California, and other elements are manufactured at qualified third-party CMOs. Since our own manufacturing facilities may be limited or unable to manufacture certain of our preclinical and clinical trial product materials and supplies, we rely on third-party contract manufacturers to manufacture such clinical trial product materials and supplies for our or our collaborator's needs. There can be no assurance that our preclinical and clinical development product supplies will not be limited, interrupted, or of satisfactory quality or continue to be available at acceptable prices. In particular, any replacement of our

manufacturer could require significant effort and expertise because there may be a limited number of qualified replacements.

The manufacturing process for a product candidate is subject to FDA and foreign regulatory authority review. We, and our suppliers and manufacturers, must meet applicable manufacturing requirements and undergo rigorous facility and process validation tests required by regulatory authorities in order to comply with regulatory standards, such as cGMPs. If we or our contract manufacturers cannot successfully manufacture material that conforms to our specifications and the strict regulatory requirements of the FDA or comparable foreign regulatory authorities, we may not be able to rely on our or their manufacturing facilities for the manufacture of elements of our product candidates. Moreover, we do not control the manufacturing process at our contract manufacturers, and are completely dependent on them for compliance with current regulatory requirements. In the event that any of our manufacturers fails to comply with such requirements or to perform its obligations in relation to quality, timing or otherwise, or if our supply of components or other materials becomes limited or interrupted for other reasons, we may be forced to manufacture the materials ourselves or enter into an agreement with another third party, which we may not be able to do on reasonable terms, if at all. In some cases, the technical skills or technology required to manufacture our product candidates may be unique or proprietary to the original manufacturer and we may have difficulty applying such skills or technology ourselves, or in transferring such to another third party. These factors would increase our reliance on such manufacturer or require us to obtain a license from such manufacturer in order to enable us, or to have another third party, manufacture our product candidates. If we are required to change manufacturers for any reason, we will be required to verify that the new manufacturer maintains facilities and procedures that comply with quality standards and with all applicable regulations and guidelines; and we may be required to repeat some of the development program. The delays associated with the verification of a new manufacturer could negatively affect our ability to develop product candidates in a timely manner or within budget.

We expect to continue to rely on third-party manufacturers if we receive regulatory approval for any product candidate. To the extent that we have existing, or enter into future, manufacturing arrangements with third parties, we will depend on these third parties to perform their obligations in a timely manner consistent with contractual and regulatory requirements, including those related to quality control and assurance. If we are unable to obtain or maintain third-party manufacturing for product candidates, or to do so on commercially reasonable terms, we may not be able to develop and commercialize our product candidates successfully. Our or a third party's failure to execute on our manufacturing requirements and comply with cGMPs could adversely affect our business in a number of ways, including:

- an inability to initiate or continue clinical trials of product candidates under development;
- delay in submitting regulatory applications, or receiving regulatory approvals, for product candidates;
- loss of the cooperation of an existing or future collaborator;
- subjecting third-party manufacturing facilities or our manufacturing facilities to additional inspections by regulatory authorities;
- requirements to cease distribution or to recall batches of our product candidates; and
- in the event of approval to market and commercialize a product candidate, an inability to meet commercial demands for our products.

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

We, or third-party manufacturers, may be unable to successfully scale-up manufacturing of our product candidates in sufficient quality and quantity, which would delay or prevent us from developing our product candidates and commercializing approved products, if any.

In order to conduct clinical trials of our product candidates, we will need to manufacture them in large quantities. We, or any manufacturing partners, may be unable to successfully increase the manufacturing capacity for any of our product candidates in a timely or cost-effective manner, or at all. In addition, quality issues may arise during scale-up activities. If we, or any manufacturing partners, are unable to successfully scale up the manufacture of our product candidates in sufficient quality and quantity, the development, testing, and clinical trials of that product candidate may be delayed or infeasible, and regulatory approval or commercial launch of any resulting product may be delayed or not obtained, which could significantly harm our business.

The manufacture of biologics is complex and we or our third-party manufacturers may encounter difficulties in production. If we or any of our third-party manufacturers encounter such difficulties, our ability to provide supply of our product candidates for clinical trials, our ability to obtain marketing approval, or our ability to provide supply of our products for patients, if approved, could be delayed or stopped.

Our product candidates are considered to be biologics and the process of manufacturing biologics is complex, time-consuming, highly regulated and subject to multiple risks. We and our contract manufacturers must comply with cGMPs, regulations and guidelines for the manufacturing of biologics used in clinical trials and, if approved, marketed products. To date, we and our contract manufacturers have limited experience in the manufacturing of cGMP batches of our product candidates.

Manufacturing biologics is highly susceptible to product loss due to contamination, equipment failure, improper installation or operation of equipment, vendor or operator error, inconsistency in yields, variability in product characteristics and difficulties in scaling the production process. Even minor deviations from normal manufacturing processes could result in reduced production yields, product defects and other supply disruptions. If microbial, viral or other contaminations are discovered at our manufacturing facilities or those of our third-party manufacturers, such facilities may need to be closed for an extended period of time to investigate and remedy the contamination, which could delay clinical trials and adversely harm our business. Moreover, if the FDA determines that our manufacturing facilities or those of our third-party manufacturers are not in compliance with FDA laws and regulations, including those governing cGMPs, the FDA may deny BLA approval until the deficiencies are corrected or we replace the manufacturer in our BLA with a manufacturer that is in compliance.

In addition, there are risks associated with large scale manufacturing for clinical trials or commercial scale including, among others, cost overruns, potential problems with process scale-up, process reproducibility, stability issues, compliance with cGMPs, lot consistency and timely availability of raw materials. Even if we or our collaborators obtain regulatory approval for any of our product candidates, there is no assurance that manufacturers will be able to manufacture the approved product to specifications acceptable to the FDA or other regulatory authorities, to produce it in sufficient quantities to meet the requirements for the potential launch of the product or to meet potential future demand. If our manufacturers are unable to produce sufficient quantities for clinical trials or for commercialization, commercialization efforts would be impaired, which would have an adverse effect on our business, financial condition, results of operations and prospects.

Scaling up a biologic manufacturing process is a difficult and uncertain task, and we may not be successful in transferring our production system or our third-party manufacturers may not have the necessary capabilities to complete the implementation and development process. If we are unable to adequately validate or scale-up the manufacturing process at our own manufacturing facilities or those

of our current manufacturers, we will need to transfer to another manufacturer and complete the manufacturing validation process, which can be lengthy. If we are able to adequately validate and scale-up the manufacturing process for our product candidates at our manufacturing facility or with a contract manufacturer, we will still need to negotiate with such contract manufacturer an agreement for commercial supply and it is not certain we will be able to come to agreement on terms acceptable to us.

We cannot assure you that any stability or other issues relating to the manufacture of any of our product candidates or products will not occur in the future. If we or our third-party manufacturers were to encounter any of these difficulties, our ability to provide any product candidates to patients in planned clinical trials and products to patients, once approved, would be jeopardized. Any delay or interruption in the supply of clinical trial supplies could delay the completion of planned clinical trials, increase the costs associated with maintaining clinical trial programs and, depending upon the period of delay, require us to commence new clinical trials at additional expense or terminate clinical trials completely. Any adverse developments affecting clinical or commercial manufacturing of our product candidates or products may result in shipment delays, inventory shortages, lot failures, product withdrawals or recalls, or other interruptions in the supply of our product candidates or products. We may also have to take inventory write-offs and incur other charges and expenses for product candidates or products that fail to meet specifications, undertake costly remediation efforts or seek more costly manufacturing alternatives. Accordingly, failures or difficulties faced at any level of our supply chain could adversely affect our business and delay or impede the development and commercialization of any of our product candidates or products, if approved, and could have an adverse effect on our business, prospects, financial condition and results of operations.

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.

We may not be successful in our efforts to use our XpressCF Platform to expand our pipeline of product candidates and develop marketable products.

The success of our business depends in large part upon our ability to identify, develop and commercialize products based on our XpressCF Platform. STRO-001 and STRO-002 are our primary clinical and late-stage preclinical programs and our research programs may fail to identify other potential product candidates for clinical development for a number of reasons. Our research methodology may be unsuccessful in identifying potential product candidates or our potential product candidates may be shown to have harmful side effects or may have other characteristics that may make the products unmarketable or unlikely to receive marketing approval. If any of these events occur, we may be forced to abandon our development efforts for a program or for multiple programs, which would materially harm our business and could potentially cause us to cease operations. Research programs to identify new product candidates require substantial technical, financial and human resources. We may focus our efforts and resources on potential programs or product candidates that ultimately prove to be unsuccessful.

We may expend our limited resources to pursue a particular product candidate and fail to capitalize on product candidates that may be more profitable or for which there is a greater likelihood of success.

Because we have limited financial and managerial resources, we focus our research and development efforts on certain selected product candidates. As a result, we may forgo or delay pursuit of opportunities with other product candidates that later prove to have greater commercial potential. Our resource allocation decisions may cause us to fail to capitalize on viable commercial products or profitable market opportunities. Our spending on current and future research and development programs and product candidates for specific indications may not yield any commercially viable product candidates. If we do not accurately evaluate the commercial potential or target market for a particular product candidate, we may relinquish valuable rights to that product candidate through collaboration, licensing or other royalty arrangements in cases in which it would have been more advantageous for us to retain sole development and commercialization rights to such product candidate.

Failure to successfully validate, develop and obtain regulatory approval for companion diagnostics for our product candidates could harm our drug development strategy and operational results.

If companion diagnostics are developed in conjunction with clinical programs, the FDA may require regulatory approval of a companion diagnostic as a condition to approval of the product candidate. For example, if we use a diagnostic test to determine which patients are most likely to benefit from STRO-001 for the treatment of multiple myeloma and non-Hodgkin lymphoma by designing our pivotal trial or trials of STRO-001 in that indication to require that clinical trial patients have elevated CD74 expression as a criterion for enrollment, then we will likely be required to obtain FDA approval or clearance of a companion diagnostic, concurrent with approval of STRO-001, to test for elevated CD74 expression; we may also be required to demonstrate to the FDA the predictive utility of the companion diagnostic—namely, that the diagnostic selects for patients in whom the biologic therapy will be effective or more effective compared to patients not selected for by the diagnostic. Similarly, as we are developing STRO-002 for a potential indication in patients with elevated FOLR a expression levels, we will likely be required to obtain FDA approval or clearance of a companion diagnostic, concurrent with approval of STRO-002, to test for elevated FOLRa expression. We do not have experience or capabilities in developing or commercializing diagnostics and plan to rely in large part on third parties to perform these functions. We do not currently have any agreement in place with any third party to develop or commercialize companion diagnostics for any of our product candidates. Companion diagnostics are subject to regulation by the FDA and foreign regulatory authorities as medical devices and require separate regulatory approval or clearance prior to commercialization.

If we or our collaborators, or any third party, are unable to successfully develop companion diagnostics for our product candidates, or experience delays in doing so:

- the development of our product candidates may be adversely affected if we are unable to appropriately select patients for enrollment in our planned clinical trials;
- our product candidates may not receive marketing approval if their safe and effective use depends on a companion diagnostic; and
- we may not realize the full commercial potential of any product candidates that receive marketing approval if, among other reasons, we are unable to appropriately identify patients with the specific genetic alterations targeted by our product candidates.

In addition, although we believe genetic testing is becoming more prevalent in the diagnosis and treatment of various diseases and conditions, our product candidates may be perceived negatively compared to alternative treatments that do not require the use of companion diagnostics, either due to

the additional cost of the companion diagnostic or the need to complete additional procedures to identify genetic markers prior to administering our product candidates. If any of these events were to occur, our business would be harmed, possibly materially.

We face competition from entities that have developed or may develop product candidates for cancer, including companies developing novel treatments and technology platforms. If these companies develop technologies or product candidates more rapidly than we do or their technologies are more effective, our ability to develop and successfully commercialize product candidates may be adversely affected.

The development and commercialization of drugs and therapeutic biologics is highly competitive. Our product candidates, if approved, will face significant competition and our failure to effectively compete may prevent us from achieving significant market penetration. Most of our competitors have significantly greater resources than we do and we may not be able to successfully compete. We compete with a variety of multinational biopharmaceutical companies, specialized biotechnology companies and emerging biotechnology companies, as well as with technologies and product candidates 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 and processes. Competitive therapeutic treatments include those that have already been approved and accepted by the medical community and any new treatments, including those based on novel technology platforms, that enter the market. We believe that a significant number of products are currently under development, and may become commercially available in the future, for the treatment of conditions for which we are trying, or may try, to develop product candidates. There is intense and rapidly evolving competition in the biotechnology, biopharmaceutical and antibody and immunoregulatory therapeutics fields. While we believe that our XpressCF Platform, associated intellectual property and our scientific and technical know-how give us a competitive advantage in this space, competition from many sources exists or may arise in the future. Our competitors include larger and better funded biopharmaceutical, biotechnological and therapeutics companies, including companies focused on cancer immunotherapies, such as AstraZeneca PLC, Bristol-Myers Squibb Company, or BMS, GlaxoSmithKline PLC, Merck & Co., Inc., Novartis AG, Pfizer Inc., or Pfizer, Roche Holding Ltd, Sanofi S.A and companies focused on ADCs, such as Pfizer, ImmunoGen, Inc., or Immunogen, Seattle Genetics, Inc., or Seattle Genetics, and Genentech, Inc., or Genentech, as well as numerous small companies. Moreover, we also compete with current and future therapeutics developed at universities and other research institutions.

We are aware of several companies that are developing ADCs, bispecific antibodies and cancer immunotherapies. Many of these companies are well-capitalized and, in contrast to us, have significant clinical experience, and may include our existing or future collaborators. In addition, these companies compete with us in recruiting scientific and managerial talent.

Our success will depend partially 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 are safer, more effective, or less expensive than the therapeutics we develop.

If our lead product candidates are approved, they will compete with a range of therapeutic treatments that are either in development or currently marketed. Currently marketed oncology drugs and therapeutics range from ADCs, such as Genentech's Kadcyla, to immune checkpoint inhibitors such as BMS's Opdivo to T cell-engager immunotherapies such as Amgen, Inc.'s Blincyto. In addition, numerous compounds are in clinical development for cancer treatment. With respect to B cell based malignancies, such as multiple myeloma, the most common treatments are chemotherapeutic compounds, radiation therapy, stem cell transplantation and immunomodulating agents. The clinical

development pipeline for cancer includes small molecules, antibodies, vaccines, cell therapies and immunotherapies from a variety of companies and institutions.

Many of our competitors have significantly greater financial, technical, manufacturing, marketing, sales and supply resources or experience than we have. 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.

Any inability to attract and retain qualified key management and technical personnel would impair our ability to implement our business plan.

Our success largely depends on the continued service of key management, advisors and other specialized personnel, including William J. Newell, our chief executive officer, Edward Albini, our chief financial officer, Trevor J. Hallam, Ph.D., our chief scientific officer, Arturo Molina, M.D., our chief medical officer and Shabbir T. Anik, Ph.D., our chief technical operations officer. The loss of one or more members of our management team or other key employees or advisors could delay our research and development programs and have a material and adverse effect on our business, financial condition, results of operations and prospects. The relationships that our key managers have cultivated within our industry make us particularly dependent upon their continued employment with us. We are dependent on the continued service of our technical personnel because of the highly technical nature of our product candidates and XpressCF Platform technologies and the specialized nature of the regulatory approval process. Because our management team and key employees are not obligated to provide us with continued service, they could terminate their employment with us at any time without penalty. Our future success will depend in large part on our continued ability to attract and retain other highly qualified scientific, technical and management personnel, as well as personnel with expertise in clinical testing, manufacturing, governmental regulation and commercialization. We face competition for personnel from other companies, universities, public and private research institutions, government entities and other organizations. If we are unable to continue to attract and retain high-quality personnel, the rate and success at which we can discover and develop product candidates will be limited which could have a material and adverse effect on our business, financial condition, results of operations and prospects.

We will need to grow our organization, and we may experience difficulties in managing our growth and expanding our operations.

As of March 31, 2018, we had 128 full-time employees. As our development and commercialization plans and strategies develop, and as we transition into operating as a public company, we expect to expand our employee base for managerial, operational, financial and other resources. In addition, we have limited experience in product development and have just begun our first clinical trial for our first product candidate. As our product candidates enter and advance through preclinical studies and clinical trials, we will need to expand our development, regulatory and manufacturing capabilities or contract with other organizations to provide these capabilities for us. In the future, we expect to have to manage additional relationships with collaborators or partners, suppliers and other organizations. Our ability to manage our operations and future growth will require us to continue to improve our operational, financial and management controls, reporting systems and procedures. We may not be

able to implement improvements to our management information and control systems in an efficient or timely manner and may discover deficiencies in existing systems and controls. Our inability to successful managing our growth and expand our operations could have a material and adverse effect on our business, financial condition, results of operations and prospects.

If any of our product candidates are approved for marketing and commercialization and we are unable to develop sales, marketing and distribution capabilities on our own or enter into agreements with third parties to perform these functions on acceptable terms, we will be unable to commercialize successfully any such future products.

We currently have no sales, marketing or distribution capabilities or experience. If any of our product candidates are approved, we will need to develop internal sales, marketing and distribution capabilities to commercialize such products, which would be expensive and time consuming, or enter into collaborations with third parties to perform these services. If we decide to market our products directly, we will need to commit significant financial and managerial resources to develop a marketing and sales force with technical expertise and supporting distribution, administration and compliance capabilities. If we rely on third parties with such capabilities to market our products or decide to co-promote products with collaborators, we will need to establish and maintain marketing and distribution arrangements with third parties, and there can be no assurance that we will be able to enter into such arrangements on acceptable terms or at all. In entering into third-party marketing or distribution arrangements, any revenue we receive will depend upon the efforts of the third parties and there can be no assurance that such third parties will establish adequate sales and distribution capabilities or be successful in gaining market acceptance of any approved product. If we are not successful in commercializing any product approved in the future, either on our own or through third parties, our business, financial condition, results of operations and prospects could be materially and adversely affected.

Our future growth may depend, in part, on our ability to operate in foreign markets, where we would be subject to additional regulatory burdens and other risks and uncertainties.

Our future growth may depend, in part, on our ability to develop and commercialize our product candidates in foreign markets for which we may rely on collaboration with third parties. We are not permitted to market or promote any of our product candidates before we receive regulatory approval from the applicable regulatory authority in that foreign market, and may never receive such regulatory approval for any of our product candidates. To obtain separate regulatory approval in many other countries, we must comply with numerous and varying regulatory requirements of such countries regarding safety and efficacy and governing, among other things, clinical trials and commercial sales, pricing and distribution of our product candidates, and we cannot predict success in these jurisdictions. If we fail to comply with the regulatory requirements in international markets and receive applicable marketing approvals, our target market will be reduced and our ability to realize the full market potential of our product candidates will be harmed and our business will be adversely affected. We may not obtain foreign regulatory approvals on a timely basis, if at all. Our failure to obtain approval of any of our product candidates by regulatory authorities in another country may significantly diminish the commercial prospects of that product candidate and our business, financial condition, results of operations and prospects could be materially and adversely affected. Moreover, even if we obtain approval of our product candidates and ultimately commercialize our product candidates in foreign markets, we would be subject to the risks and uncertainties, including the burden of complying with complex and changing foreign regulatory, tax, accounting and legal requirements and reduced protection of intellectual property rights in some foreign countries.

Price controls imposed in foreign markets may adversely affect our future profitability.

In some countries, particularly member states of the EU, the pricing of prescription drugs is subject to governmental control. In these countries, pricing negotiations with governmental authorities can take

considerable time after receipt of marketing approval for a product. In addition, there can be considerable pressure by governments and other stakeholders on prices and reimbursement levels, including as part of cost containment measures. Political, economic and regulatory developments may further complicate pricing negotiations, and pricing negotiations may continue after reimbursement has been obtained. Reference pricing used by various EU member states and parallel distribution, or arbitrage between low-priced and high-priced member states, can further reduce prices. In some countries, we or current or future collaborators may be required to conduct a clinical trial or other studies that compare the cost-effectiveness of our therapeutic candidates to other available therapies in order to obtain or maintain reimbursement or pricing approval. Publication of discounts by third-party payors or authorities may lead to further pressure on the prices or reimbursement levels within the country of publication and other countries. If reimbursement of any product candidate approved for marketing is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, our business, financial condition, results of operations or prospects could be materially and adversely affected.

Our business entails a significant risk of product liability and our ability to obtain sufficient insurance coverage could have a material and adverse effect on our business, financial condition, results of operations and prospects.

As we are conducting clinical trials of our product candidates we may be exposed to significant product liability risks inherent in the development, testing, manufacturing and marketing of therapeutic treatments. Product liability claims could delay or prevent completion of our development programs. If we succeed in marketing products, such claims could result in an FDA investigation of the safety and effectiveness of our products, our manufacturing processes and facilities or our marketing programs and potentially a recall of our products or more serious enforcement action, limitations on the approved indications for which they may be used or suspension or withdrawal of approvals. Regardless of the merits or eventual outcome, liability claims may also result in decreased demand for our products, injury to our reputation, costs to defend the related litigation, a diversion of management's time and our resources, substantial monetary awards to trial participants or patients and a decline in our stock price. While we currently have product liability insurance that we believe is appropriate for our stage of development, we may need to obtain higher levels prior to later stages of clinical development or marketing any of our product candidates. Any insurance we have or may obtain may not provide sufficient coverage against potential liabilities. Furthermore, clinical trial and product liability insurance is becoming increasingly expensive. As a result, we may be unable to obtain sufficient insurance at a reasonable cost to protect us against losses caused by product liability claims that could have a material and adverse effect on our business, financial condition, results of operations and prospects.

Our employees may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements.

As with all companies, we are exposed to the risk of employee fraud or other misconduct. Misconduct by employees could include intentional failures to comply with FDA regulations, provide accurate information to the FDA, comply with manufacturing standards we may establish, comply with federal and state healthcare fraud and abuse laws and regulations, report financial information or data accurately or disclose unauthorized activities to us. In particular, sales, marketing and business arrangements in the healthcare industry are subject to extensive laws and regulations intended to prevent fraud, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs and other business arrangements. Employee misconduct could also involve the improper use of information obtained in the course of clinical trials, which could result in regulatory sanctions and serious harm to our reputation. It is not always possible to identify and deter employee misconduct, 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. 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 material and adverse effect on our business, financial condition, results of operations and prospects, including the imposition of significant civil, criminal and administrative penalties, damages, fines, disgorgement, imprisonment, the curtailment or restructuring of our operations, loss of eligibility to obtain approvals from the FDA, exclusion from participation in government contracting, healthcare reimbursement or other government programs, including Medicare and Medicaid, integrity oversight and reporting obligations, or reputational harm.

We depend on our information technology systems, and any failure of these systems, or those of our CROs or other contractors or consultants we may utilize, 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, financial condition and prospects.

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

The risk of a security breach or disruption 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, of HIPPA, 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, financial condition and prospects.

Our information technology systems could face serious disruptions that could adversely affect our business.

Our information technology and other internal infrastructure systems, including corporate firewalls, servers, leased lines and connection to the Internet, face the risk of systemic failure that could disrupt our operations. A significant disruption in the availability of our information technology and other internal infrastructure systems could cause interruptions and delays in our research and development and manufacturing work.

The terms of our Loan and Security Agreement require us to meet certain covenants and place restrictions on our operating and financial flexibility. If we raise additional capital through debt financing, the terms of any new debt could further restrict our ability to operate our business.

The Loan and Security Agreement is secured by a lien covering all of our assets, excluding our intellectual property and certain other assets. Subject to the terms of the Loan and Security Agreement, we have the option to prepay all, but not less than all, of the amounts borrowed under the Loan and Security Agreement, subject to certain penalty payments, prior to the August 1, 2021 maturity date, at which time all amounts borrowed will be due and payable.

In connection with the Loan and Security Agreement, we issued Oxford and SVB warrants to purchase shares of Series D-2 redeemable convertible preferred stock, which, in connection with the initial closing of our Series E redeemable preferred stock financing, converted into warrants to purchase Series E redeemable convertible preferred stock.

The Loan and Security Agreement contains customary affirmative and negative covenants, indemnification provisions and events of default. The affirmative covenants include, among others, covenants requiring us to maintain our legal existence and governmental approvals, deliver certain financial reports and maintain certain intellectual property rights. The negative covenants include, among others, restrictions on transferring or licensing our assets, changing our business, incurring additional indebtedness, engaging in mergers or acquisitions, paying dividends or making other distributions, and creating other liens on our assets, in each case subject to customary exceptions. If we default under the Loan and Security Agreement, the lenders will be able to declare all obligations immediately due and payable and take control of our collateral, potentially requiring us to renegotiate our agreement on terms less favorable to us or to immediately cease operations. Further, if we are liquidated, the rights of Oxford and SVB to repayment would be senior to the rights of the holders of our common stock to receive any proceeds from the liquidation. Oxford, acting as collateral agent for the lenders, could declare a default under the Loan and Security Agreement upon the occurrence of any event that Oxford and SVB interpret as a material adverse change as defined under the Loan and Security Agreement, thereby requiring us to repay the loan immediately or to attempt to reverse the declaration of default through negotiation or litigation. There is currently substantial doubt about our ability to continue as a going concern given our continuing operating losses and our current available capital resources, which could be deemed to be an event of default if such condition was considered to have a material adverse effect on our business, operations or condition. As a result, we have classified the entire debt balance as a current liability given that a determination of such an event of default is outside of our control. Any declaration by the collateral agent of an event of default could significantly harm our business and prospects and could cause the price of our common stock to decline. If we raise any additional debt financing, the terms of such additional debt could further restrict our operating and financial flexibility.

If we do not comply with laws regulating the protection of the environment and health and human safety, our business could be affected adversely.

Our research, development and manufacturing involves the use of hazardous chemicals and materials, including radioactive materials. We maintain quantities of various flammable and toxic chemicals in our facilities in South San Francisco and San Carlos, California that are required for our research, development and manufacturing activities. We are subject to federal, state and local laws and regulations governing the use, manufacture, storage, handling and disposal of these hazardous chemicals and materials. We believe our procedures for storing, handling and disposing these materials in our South San Francisco and San Carlos facilities comply with the relevant guidelines of the two municipalities, the counties of San Francisco and San Mateo, the state of California and the Occupational Safety and Health Administration of the U.S. Department of Labor. Although we believe that our safety procedures for handling and disposing of these materials comply with the standards mandated by applicable regulations, the risk of accidental contamination or injury from these materials cannot be eliminated. If an accident occurs, we could be held liable for resulting damages, which could be substantial. We are also subject to numerous environmental, health and workplace safety laws and regulations, including those governing laboratory procedures, exposure to blood-borne pathogens and the handling of animals and biohazardous materials. 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 these materials, this insurance may not provide adequate coverage against potential liabilities. While we maintain pollution legal liability insurance for our manufacturing facility in San Carlos, California, we do not maintain insurance for environmental liability or toxic tort claims that may be asserted against us in connection with our storage or disposal of biological or hazardous materials in our other locations. Additional federal, state and local laws and regulations affecting our operations may be adopted in the future. We may incur substantial costs to comply with, and substantial fines or penalties if we violate, any of these laws or regulations.

Our current operations are in two cities in the San Francisco Bay Area, and 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 current operations are located in our facilities in South San Francisco and San Carlos, California. Any unplanned event, such as earthquake, flood, fire, explosion, extreme weather condition, medical epidemic, power shortage, telecommunication failure or other natural or manmade accidents or incidents that result in us being unable to fully utilize our facilities, or the manufacturing facilities of our third-party contract manufacturers, may have a material and adverse effect on our ability to operate our business, particularly on a daily basis, and have significant negative consequences on our financial and operating conditions. Loss of access to these facilities may result in increased costs, delays in the development of our product candidates or interruption of our business operations. Earthquakes or other natural disasters could further disrupt our operations, and have a material and adverse effect on our business, financial condition, results of operations and prospects. If a natural disaster, power outage or other event occurred that prevented us from using all or a significant portion of our headquarters, that damaged critical infrastructure, such as our research or manufacturing facilities or the manufacturing facilities of our third-party contract manufacturers, 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 may prove inadequate 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 could have a material adverse effect on our business. As part of our risk management policy, we maintain insurance coverage at levels that we believe are appropriate for our business. However, in the event of an accident or incident at these facilities, we cannot assure you that the amounts of insurance will be sufficient to satisfy any damages and losses. If our facilities, or the manufacturing

facilities of our third-party contract manufacturers, are unable to operate because of an accident or incident or for any other reason, even for a short period of time, any or all of our research and development programs may be harmed. Any business interruption could have a material and adverse effect on our business, financial condition, results of operations and prospects.

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

Under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, or the Code, if a corporation undergoes an "ownership change" (generally defined as a greater than 50 percentage points change (by value) in the ownership of its equity over a rolling three-year period), the corporation's ability to use its pre-change net operating loss, or NOL, carryforwards and certain other pre-change tax attributes to offset its post-change income and taxes may be limited. We have experienced such ownership changes in the past, and we may experience ownership changes in the future as a result of this offering or subsequent shifts in our stock ownership, some of which are outside our control. As of December 31, 2017, we had federal NOL carryforwards of approximately $91.6 million, and our ability to utilize those NOL carryforwards could be limited by an "ownership change" as described above, which could result in increased tax liability to our company.

On December 22, 2017, the current U.S. presidential administration, signed into law the Tax Cuts and Jobs Act of 2017, or the Tax Reform Act. The legislation significantly changes U.S. tax law by, among other things, lowering the corporate income tax rates. The Tax Reform Act permanently reduces the U.S. corporate income tax rate from a maximum of 35% to a flat 21% rate, effective January 1, 2018. Additionally, the Tax Reform Act will no longer allow deductions for compensation in excess of $1.0 million for certain employees, even if paid as commissions or performance-based compensation. We may be subject to these limitations as provided for under Section 162(m) of the Code in the future. The Tax Reform Act also limits the amount taxpayers are able to deduct for federal NOL carryforwards generated in taxable years beginning after December 31, 2017 to 80% of the taxpayer's taxable income. The law also generally repeals all carrybacks. However, any NOLs generated in taxable years after December 31, 2017 can be carried forward indefinitely. Losses arising in taxable years beginning before December 31, 2017 may still be carried back two years and are subject to their current expiration period. As of December 31, 2017, we have approximately $91.6 million of federal NOLs that were generated prior to 2018 which will expire at various dates beginning in 2032, if not used to reduce income taxes payable in the future. Federal NOLs generated by us subsequent to 2017 may only offset 80% of taxable income.

The Securities and Exchange Commission, or SEC, staff issued Staff Accounting Bulletin No. 118 to address the application of generally accepted accounting principles in the United States 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 Reform Act. We have recognized provision tax impacts related to the revaluation of deferred tax assets and liabilities and included this amount in our financial statements for the year ended December 31, 2017. The ultimate impact may differ from these provision amounts, due to, among other things, additional analysis, changes in interpretations and assumptions we have made, additional regulatory guidance that may be issued and actions we may take as a result of the Tax Reform Act. The accounting is expected to be complete when the 2017 U.S. corporate income tax return is filed in 2018.

Risks Related to Intellectual Property

If we are not able to obtain and enforce patent protection for our technologies or product candidates, development and commercialization of our product candidates may be adversely affected.

Our success depends in part on our ability to obtain and maintain patents and other forms of intellectual property rights, including in-licenses of intellectual property rights of others, for our product candidates, methods used to manufacture our product candidates and methods for treating patients using our product candidates, as well as our ability to preserve our trade secrets, to prevent third parties from infringing upon our proprietary rights and to operate without infringing upon the proprietary rights of others. As of March 31, 2018, we solely own 19 issued patents and 94 pending patent applications; and, under an exclusive, worldwide license agreement with The Board of Trustees of the Leland Stanford Junior University, the Stanford Agreement, we licensed 57 issued patents with claims relating to methods related to expression of the protein components of our product candidates using our XpressCF Platform. We may not be able to apply for patents on certain aspects of our product candidates in a timely fashion or at all. Further, we may not be able to prosecute all necessary or desirable patent applications, or maintain, enforce and license any patents that may issue from such patent applications, at a reasonable cost or in a timely manner. It is also possible that we will fail to identify patentable aspects of our research and development output before it is too late to obtain patent protection. We may not have the right to control the preparation, filing and prosecution of all patent applications that we license from third parties, or to maintain the rights to patents licensed to third parties. Therefore, these patents and applications may not be prosecuted and enforced in a manner consistent with the best interests of our business. Our existing issued and granted patents and any future patents we obtain may not be sufficiently broad to prevent others from using our technology or from developing competing products and technology. There is no guarantee that any of our pending patent applications will result in issued or granted patents, that any of our issued or granted patents will not later be found to be invalid or unenforceable or that any issued or granted patents will include claims that are sufficiently broad to cover our product candidates or to provide meaningful protection from our competitors. Moreover, the patent position of biotechnology and biopharmaceutical companies can be highly uncertain because it involves complex legal and factual questions. We will be able to protect our proprietary rights from unauthorized use by third parties only to the extent that our current and future proprietary technology and product candidates are covered by valid and enforceable patents or are effectively maintained as trade secrets. If third parties disclose or misappropriate our proprietary rights, it may materially and adversely affect our position in the market.

The U.S. Patent and Trademark Office, or USPTO, and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other provisions during the patent process. 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. The standards applied by the USPTO and foreign patent offices in granting patents are not always applied uniformly or predictably. For example, there is no uniform worldwide policy regarding patentable subject matter or the scope of claims allowable in biotechnology and biopharmaceutical patents. As such, we do not know the degree of future protection that we will have on our proprietary products and technology. While we will endeavor to try to protect our product candidates with intellectual property rights such as patents, as appropriate, the process of obtaining patents is time consuming, expensive and sometimes unpredictable.

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. In the course of such proceedings, which may continue for a

protracted period of time, the patent owner may be compelled to limit the scope of the allowed or granted claims thus attacked, or may lose the allowed or granted claims altogether. In addition, there can be no assurance that:

- others will not or may not be able to make, use or sell compounds that are the same as or similar to our product candidates but that are not covered by the claims of the patents that we own or license;
- we or our licensors, or our existing or future collaborators are the first to make the inventions covered by each of our issued patents and pending patent applications that we own or license;
- we or our licensors, or our existing or future collaborators are the first to file patent applications covering certain aspects of our inventions;
- others will not independently develop similar or alternative technologies or duplicate any of our technologies without infringing our intellectual property rights;
- a third party may not challenge our patents and, if challenged, a court would hold that our patents are valid, enforceable and infringed;
- any issued patents that we own or have licensed will provide us with any competitive advantages, or will not be challenged by third parties;
- we may develop additional proprietary technologies that are patentable;
- the patents of others will not have a material or adverse effect on our business, financial condition, results of operations and prospects; and
- 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.

If we or our licensors or collaborators fail to maintain the patents and patent applications covering our product candidates, our competitors might be able to enter the market, which could have a material and adverse effect on our business, financial condition, results of operations and prospects.

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

In addition to seeking patent protection for certain aspects of our product candidates, we also consider trade secrets, including confidential and unpatented know-how important to the maintenance of our competitive position. We protect trade secrets and confidential and unpatented know-how, in part, by entering into non-disclosure and confidentiality agreements with parties who have access to such knowledge, such as our employees, corporate collaborators, outside scientific collaborators, CROs, contract manufacturers, consultants, advisors and other third parties. We also enter into confidentiality and invention or patent assignment agreements with our employees and consultants that obligate them to maintain confidentiality and assign their inventions to us. Despite these efforts, 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. 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 in the United States and certain foreign jurisdictions are less willing or unwilling to protect trade secrets. If any of our trade secrets were to be lawfully obtained or independently developed by a competitor, we would have no right to prevent them from using that technology or information to compete with us. If any of our trade secrets were to be disclosed to or independently developed by a competitor, our competitive position would be harmed which could have a material and adverse effect on our business, financial condition, results of operations and prospects.

Other companies or organizations may challenge our or our licensors' patent rights or may assert patent rights that prevent us from developing and commercializing our products.

Therapeutics in oncology or other disease areas developed in cell-free-based synthesis systems are a relatively new scientific field. We have obtained grants and issuances of, and have obtained a license from a third party on an exclusive basis to, patents related to our proprietary XpressCF Platform. The issued patents and pending patent applications in the United States and in key markets around the world that we own or license claim many different methods, compositions and processes relating to the discovery, development, manufacture and commercialization of antibody-based and other therapeutics.

As the field of antibody-based therapeutics continues to mature, patent applications are being processed by national patent offices around the world. There is uncertainty about which patents will issue and, if they do, as to when, to whom, and with what claims. In addition, third parties may attempt to invalidate our intellectual property rights. Even if our rights are not directly challenged, disputes could lead to the weakening of our intellectual property rights. Our defense against any attempt by third parties to circumvent or invalidate our intellectual property rights could be costly to us, could require significant time and attention of our management and could have a material and adverse effect on our business, financial condition, results of operations and prospects or our ability to successfully compete.

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

Obtaining a valid and enforceable issued or granted patent covering our technology in the United States and worldwide can be extremely costly, and our or our licensors' or collaborators' intellectual property rights may not exist in some countries outside the United States or may be less extensive in some countries than in the United States. In jurisdictions where we or our licensors or collaborators have not obtained patent protection, competitors may seek to use our or their technology to develop their own products and further, may export otherwise infringing products to territories where we or they have patent protection, but where it is more difficult to enforce a patent as compared to the United States. Competitor products may compete with our future products in jurisdictions where we do not have issued or granted patents or where our or our licensors' or collaborators' issued or granted patent claims or other intellectual property rights are not sufficient to prevent competitor activities in these jurisdictions. The legal systems of certain countries, particularly certain developing countries, make it difficult to enforce patents and such countries may not recognize other types of intellectual property protection, particularly relating to biopharmaceuticals. This could make it difficult for us or our licensors or collaborators to prevent the infringement of our or their patents or marketing of competing products in violation of our or their proprietary rights generally in certain jurisdictions. Proceedings to enforce our patent rights in foreign jurisdictions could result in substantial cost and divert our and our licensors' or collaborators' efforts and attention from other aspects of our business, could put our and our licensors' or collaborators' patents at risk of being invalidated or interpreted narrowly and our and our licensors' or collaborators' patent applications at risk of not issuing and could provoke third parties to assert claims against us or our licensors or collaborators. We or our licensors or collaborators may not prevail in any lawsuits that we or our licensors or collaborators initiate, and the damages or other remedies awarded, if any, may not be commercially meaningful.

We generally file a provisional patent application first (a priority filing) at the USPTO. An international application under the Patent Cooperation Treaty, PCT, is usually filed within twelve months after the priority filing. Based on the PCT filing, national and regional patent applications may be filed in the United States, EU, Japan, Australia and Canada and, depending on the individual case, also in any or all of, inter alia, Brazil, China, Hong Kong, India, Israel, Mexico, New Zealand, Russia, South Africa, South Korea and other jurisdictions. We have so far not filed for patent protection in all national and regional jurisdictions where such protection may be available. In addition, we may decide to abandon national and regional patent applications before grant. Finally, the grant proceeding of each

national or regional patent is an independent proceeding which may lead to situations in which applications might in some jurisdictions be refused by the relevant registration authorities, while granted by others. It is also quite common that depending on the country, various scopes of patent protection may be granted on the same product candidate or technology.

The laws of some jurisdictions do not protect intellectual property rights to the same extent as the laws in the United States, and many companies have encountered significant difficulties in protecting and defending such rights in such jurisdictions. If we or our licensors or collaborators encounter difficulties in protecting, or are otherwise precluded from effectively protecting, the intellectual property rights important for our business in such jurisdictions, the value of these rights may be diminished and we may face additional competition from others in those jurisdictions. Many countries have compulsory licensing laws under which a patent owner may be compelled to grant licenses to third parties. In addition, many countries limit the enforceability of patents against government agencies or government contractors. In these countries, the patent owner may have limited remedies, which could materially diminish the value of such patent. If we or any of our licensors or collaborators are forced to grant a license to third parties with respect to any patents relevant to our business, our competitive position in the relevant jurisdiction may be impaired and our business, financial condition, results of operations and prospects may be adversely affected.

We, our licensors or collaborators, or any future strategic partners may need to resort to litigation to protect or enforce our patents or other proprietary rights, all of which could be costly, time consuming, delay or prevent the development and commercialization of our product candidates, or put our patents and other proprietary rights at risk.

Competitors may infringe our patents or other intellectual property. If we were to initiate legal proceedings against a third party to enforce a patent covering one of our products or our technology, the defendant could counterclaim that our patent is invalid or unenforceable. In patent litigation in the United States, defendant counterclaims alleging invalidity or unenforceability are commonplace. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, for example, lack of novelty, obviousness or non-enablement. Grounds for an unenforceability assertion could be an allegation that an individual connected with prosecution of the patent withheld relevant information from the USPTO, or made a misleading statement, during prosecution. The outcome following legal assertions of invalidity and unenforceability during patent litigation is unpredictable. With respect to the validity question, for example, we cannot be certain that there is no invalidating prior art, of which we and the patent examiner were unaware during prosecution. If a defendant were to prevail on a legal assertion of invalidity or unenforceability, we would lose at least part, and perhaps all, of the patent protection on one or more of our products or certain aspects of our platform technology. Such a loss of patent protection could have a material and adverse effect on our business, financial condition, results of operations and prospects. 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. 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. 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. Patents and other intellectual property rights also will not protect our technology if competitors design around our protected technology without legally infringing our patents or other intellectual property rights.

Intellectual property rights of third parties could adversely affect our ability to commercialize our product candidates, and we, our licensors or collaborators, or any future strategic partners may become subject to third party claims or litigation alleging infringement of patents or other proprietary rights or seeking to invalidate patents or other proprietary rights. We might be required to litigate or obtain licenses from third parties in order to develop or market our product candidates. Such litigation or licenses could be costly or not available on commercially reasonable terms.

We, our licensors or collaborators, or any future strategic partners may be subject to third-party claims for infringement or misappropriation of patent or other proprietary rights. 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 and *inter partes* review proceedings before the USPTO, and corresponding foreign patent offices. There are many issued and pending patents that might claim aspects of our product candidates and modifications that we may need to apply to our product candidates. There are also many issued patents that claim antibodies, or portions of antibodies, linkers, or cytotoxic warheads that may be relevant for the products we wish to develop. Thus, it is possible that one or more organizations will hold patent rights to which we will need a license. If those organizations refuse to grant us a license to such patent rights on reasonable terms, we may not be able to market products or perform research and development or other activities covered by these patents which could have a material and adverse effect on our business, financial condition, results of operations and prospects. We are obligated under certain of our license and collaboration agreements to indemnify and hold harmless our licensors or collaborators for damages arising from intellectual property infringement by use. For example, we are obligated under the Stanford Agreement to indemnify and hold harmless Stanford for damages arising from intellectual property infringement by us resulting from exercise of the license from Stanford. If we, our licensors or collaborators, or any future strategic partners are found to infringe a third-party patent or other intellectual property rights, we could be required to pay damages, potentially including treble damages, if we are found to have infringed willfully. In addition, we, our licensors or collaborators, or any future strategic partners may choose to seek, or be required to seek, a license from a third party, which may not be available on acceptable terms, if at all. Even if a license can be obtained on acceptable terms, the rights may be non-exclusive, which could give our competitors access to the same technology or intellectual property rights licensed to us. If we fail to obtain a required license, we or our existing or future collaborators may be unable to effectively market product candidates based on our technology, which could limit our ability to generate revenue or achieve profitability and possibly prevent us from generating revenue sufficient to sustain our operations. In addition, we may find it necessary to pursue claims or initiate lawsuits to protect or enforce our patent or other intellectual property rights. The cost to us in defending or initiating any litigation or other proceeding relating to patent or other proprietary rights, even if resolved in our favor, could be substantial, and litigation could divert our management's attention. Some of our competitors may be able to sustain the costs of complex patent litigation more effectively than we can because they have substantially greater resources. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could delay our research and development efforts and limit our ability to continue our operations.

Because the antibody-based therapeutics landscape is still evolving, it is difficult to conclusively assess our freedom to operate without infringing on third-party rights. There are numerous companies that have pending patent applications and issued patents broadly covering antibodies generally, covering antibodies directed against the same targets as, or targets similar to, those we are pursuing, or covering linkers and cytotoxic warheads similar to those that we are using in our product candidates. For example, we are aware of an issued patent, expected to expire in 2023, which has claims relating to methods of treating CD74-positive multiple myeloma with an ADC targeting CD74. If valid and not yet expired when, and if, we receive marketing approval for STRO-001, we may need to seek a license to this patent, which may not be available on commercially reasonable terms or at all. Failure to receive

a license could delay commercialization of STRO-001. Our competitive position may suffer if patents issued to third parties or other third-party intellectual property rights cover our products or product candidates or elements thereof, or our manufacture or uses relevant to our development plans. In such cases, we may not be in a position to develop or commercialize products or product candidates until such patents expire or unless we successfully pursue litigation to nullify or invalidate the third-party intellectual property right concerned, or enter into a license agreement with the intellectual property right holder, if available on commercially reasonable terms. There may be issued patents of which we are not aware, held by third parties that, if found to be valid and enforceable, could be alleged to be infringed by our XpressCF Platform and related technologies and product candidates. There also may be pending patent applications of which we are not aware that may result in issued patents, which could be alleged to be infringed by our XpressCF Platform and related technologies and product candidates. If such an infringement claim should be brought and be successful, we may be required to pay substantial damages, including potentially treble damages and attorneys' fees for willful infringement, and we may be forced to abandon our product candidates or seek a license from any patent holders. No assurances can be given that a license will be available on commercially reasonable terms, if at all.

It is also possible that we have failed to identify relevant third-party patents or applications. For example, U.S. applications filed before November 29, 2000 and certain U.S. applications filed after that date that will not be filed outside the United States remain confidential until patents issue. Patent applications in the United States and elsewhere are 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. Therefore, patent applications covering our products or platform technology could have been filed by others without our knowledge. Additionally, pending patent applications that have been published can, subject to certain limitations, be later amended in a manner that could cover our platform technology, our products or the use of our products. Third-party intellectual property right holders may also actively bring infringement claims against us. We cannot guarantee that we will be able to successfully settle or otherwise resolve such infringement claims. If we are unable to successfully settle future claims on terms acceptable to us, we may be required to engage in or continue costly, unpredictable and time-consuming litigation and may be prevented from or experience substantial delays in marketing our products. Parties making claims against us may be able to sustain the costs of complex patent litigation more effectively than we can because they have substantially greater resources. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation or administrative proceedings, there is a risk that some of our confidential information could be compromised by disclosure. In addition, any uncertainties resulting from the initiation and continuation of any litigation could have material adverse effect on our ability to raise additional funds or otherwise have a material adverse effect on our business, results of operations, financial condition and prospects. If we fail in any such dispute, in addition to being forced to pay damages, we may be temporarily or permanently prohibited from commercializing any of our product candidates that are held to be infringing. We might, if possible, also be forced to redesign product candidates so that we no longer infringe the third-party intellectual property rights. Any of these events, even if we were ultimately to prevail, could require us to divert substantial financial and management resources that we would otherwise be able to devote to our business and could have a material and adverse effect on our business, financial condition, results of operations and prospects.

Intellectual property litigation could cause us to spend substantial resources and distract our personnel from their normal responsibilities.

Litigation or other legal proceedings relating to intellectual property claims, with or without merit, is unpredictable and generally expensive and time consuming and is likely to divert significant resources from our core business, including distracting our technical and management personnel from their normal responsibilities. 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. 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. Moreover, 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 adequately conduct such litigation or proceedings. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their greater financial resources and more mature and developed intellectual property portfolios. Accordingly, despite our efforts, we may not be able to prevent third parties from infringing upon or misappropriating or from successfully challenging our intellectual property rights. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could have a material adverse effect on our ability to compete in the marketplace.

If we fail to comply with our obligations under any license, collaboration or other agreements, we may be required to pay damages and could lose intellectual property rights that are necessary for developing and protecting our product candidates or we could lose certain rights to grant sublicenses.

Our current licenses impose, and any future licenses we enter into are likely to impose, various development, commercialization, funding, milestone, royalty, diligence, sublicensing, insurance, patent prosecution and enforcement and/or other obligations on us. If we breach any of these obligations, or use the intellectual property licensed to us in an unauthorized manner, we may be required to pay damages and the licensor may have the right to terminate the license, which could result in us being unable to develop, manufacture and sell any future products that are covered by the licensed technology or enable a competitor to gain access to the licensed technology. 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 determine currently 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.

Moreover, disputes may arise regarding intellectual property subject to a licensing agreement, including:

- the scope of rights granted under the license agreement and other interpretation-related issues;
- the extent to which our product candidates, 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 under our collaborative development relationships;
- our diligence obligations under the license agreement and what activities satisfy those diligence obligations;
- the inventorship and ownership of inventions and know-how resulting from the joint creation or use of intellectual property by our licensors and us and our partners; and
- the priority of invention of patented technology.

In addition, the agreements under which we currently license intellectual property or technology from third parties are complex, and certain provisions in such agreements may be susceptible to

multiple interpretations. The resolution of any contract interpretation disagreement that may arise could narrow what we believe to be the scope of our rights to the relevant intellectual property or technology, or increase what we believe to be our financial or other obligations under the relevant agreement, either of which could have a material adverse effect on our business, financial condition, results of operations, and prospects. Moreover, if disputes over intellectual property that we have licensed prevent or impair our ability to maintain our current licensing arrangements on commercially acceptable terms, we may be unable to successfully develop and commercialize the affected product candidates, which could have a material adverse effect on our business, financial conditions, results of operations, and prospects.

We may be subject to claims that we or our employees or consultants have wrongfully used or disclosed alleged trade secrets of our employees' or consultants' former employers or their clients. These claims may be costly to defend and if we do not successfully do so, we may be required to pay monetary damages and may lose valuable intellectual property rights or personnel.

Many of our employees were previously employed at universities or biotechnology or biopharmaceutical companies, including our competitors or potential competitors. Although no claims against us are currently pending, we may be subject to claims that these employees or we have inadvertently or otherwise used or disclosed trade secrets or other proprietary information of their former employers. Litigation may be necessary to defend against these claims. If we fail in defending such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. A loss of key research personnel or their work product could hamper our ability to commercialize, or prevent us from commercializing, our product candidates, which could severely harm our business. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management.

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

Patents have a limited lifespan. In the United States, if all maintenance fees are timely paid, the natural expiration of a patent is generally 20 years from its earliest U.S. non-provisional filing date. Various extensions may be available, but the life of a patent, and the protection it affords, is limited. Even if patents covering our product candidates are obtained, once the patent life has expired, we may be open to competition from competitive products, including generics or biosimilars. 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 owned and licensed patent portfolio may not provide us with sufficient rights to exclude others from commercializing products similar or identical to ours.

Obtaining and maintaining our 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.

Periodic maintenance fees, renewal fees, annuity fees and various other governmental fees on patents and/or applications will be due to be paid to the USPTO and various governmental patent agencies outside of the United States in several stages over the lifetime of the patents and/or applications. We have systems in place to remind us to pay these fees, and we employ an outside firm and/or rely on our outside counsel to pay these fees due to non-U.S. patent agencies. The USPTO and various non-U.S. governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process. We employ reputable law firms and other professionals to help us comply, and in many cases, an inadvertent lapse can be cured by payment of a late fee or by other means in accordance with the

applicable rules. However, there are situations in which non-compliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. In such an event, our competitors might be able to enter the market and this circumstance would have a material adverse effect on our business.

Changes in U.S. patent and ex-U.S. patent laws could diminish the value of patents in general, thereby impairing our ability to protect our products.

Changes in either the patent laws or interpretation of the patent laws in the United States or in other ex-U.S. jurisdictions could increase the uncertainties and costs surrounding the prosecution of patent applications and the enforcement or defense of issued patents. In the United States, numerous recent changes to the patent laws and proposed changes to the rules of the USPTO that may have a significant impact on our ability to protect our technology and enforce our intellectual property rights. For example, the America Invents Act, enacted within the last several years involves significant changes in patent legislation. The U.S. Supreme Court has ruled on several patent cases in recent years, some of which cases either narrow the scope of patent protection available in certain circumstances or weaken the rights of patent owners in certain situations. For example, the decision by the U.S. Supreme Court in Association for Molecular Pathology v. Myriad Genetics, Inc. precludes a claim to a nucleic acid having a stated nucleotide sequence that is identical to a sequence found in nature and unmodified. We currently are not aware of an immediate impact of this decision on our patents or patent applications because we are developing product candidates that contain modifications that we believe are not found in nature. However, this decision has yet to be clearly interpreted by courts and by the USPTO. We cannot assure you that the interpretations of this decision or subsequent rulings will not adversely impact our patents or patent applications. 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 the U.S. Congress, the federal courts and the USPTO, and similar legislative and regulatory bodies in other countries in which may pursue patent protection, 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 that we might obtain in the future.

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 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 or may be forced to stop using these names, which we need for name recognition by potential partners or customers in our markets of interest. If we are unable to establish name recognition based on our trademarks and trade names, we may not be able to compete effectively which could have a material and adverse effect on our business, financial condition, results of operations and prospects.

Risks Related to Government Regulation

Clinical development involves a lengthy and expensive process with an uncertain outcome, and results of earlier studies and trials may not be predictive of future trial results. If we are unable to develop, obtain regulatory approval for and commercialize our product candidates, or experience significant delays in doing so, our business will be materially harmed.

All of our product candidates are in preclinical or early clinical development and their risk of failure is high. It is impossible to predict when or if any of our product candidates will receive regulatory approval. Before obtaining marketing approval from regulatory authorities for the sale of any product candidate, we must complete preclinical studies and then conduct extensive clinical trials to demonstrate the safety and efficacy of our product candidates in humans. Clinical testing is expensive

and can take many years to complete, and its outcome is inherently uncertain. Failure can occur at any time during the development process. The results of preclinical studies and early clinical trials of our product candidates may not be predictive of the results of later-stage clinical trials. Product candidates in later stages of clinical trials may fail to show the desired safety and efficacy traits, despite having progressed through preclinical studies and initial clinical trials. A number of companies in the biopharmaceutical industry have suffered significant setbacks in advanced clinical trials due to lack of efficacy or safety profiles, notwithstanding promising results in earlier trials.

We commenced a Phase 1 clinical trial of STRO-001, an ADC directed against CD74, for certain cancers in April 2018, and we plan to submit an IND for STRO-002, an ADC directed against Folate Receptor alpha, for certain cancers to the FDA in the fourth quarter of 2018. Commencing our future clinical trials is subject to finalizing the trial design and submitting an IND or similar submission with the FDA or similar foreign regulatory authority. Even after we submit our IND or comparable submissions in other jurisdictions, the FDA or other regulatory authorities could disagree that we have satisfied their requirements to commence our clinical trials or disagree with our study design, which may require us to complete additional preclinical studies or amend our protocols or impose stricter conditions on the commencement of clinical trials.

We or our collaborators may experience delays in completing our preclinical studies and initiating or completing clinical trials of our product candidates. We do not know whether planned preclinical studies and clinical trials will be completed on schedule or at all, or whether planned clinical trials will begin on time, need to be redesigned, have patients enrolled on time or be completed on schedule, if at all. We or our collaborators may experience numerous unforeseen events during, or as a result of, clinical trials that could delay or prevent our ability to receive marketing approval to commercialize our product candidates. Our development programs may be delayed for a variety of reasons, including delays related to:

- the FDA or other regulatory authorities requiring us or our collaborators to submit additional data or imposing other requirements before permitting us to initiate a clinical trial;
- obtaining regulatory approval to commence a clinical trial;
- the FDA or other regulatory authorities placing a clinical trial on clinical hold;
- reaching agreement on acceptable terms with prospective CROs and clinical trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and clinical trial sites;
- clinical trials of our product candidates producing negative or inconclusive results, and we or our collaborators deciding, or regulators requiring us, to conduct additional clinical trials, including testing in more subjects, or abandoning product development programs;
- third-party contractors used by us or our collaborators failing to comply with regulatory requirements or meet their contractual obligations in a timely manner, or at all;
- obtaining institutional review board, or IRB, approval at each clinical trial site;
- recruiting suitable patients to participate in a clinical trial;
- developing and validating any companion diagnostic that would be used in a clinical trial;
- cost of clinical trials being greater than anticipated;
- the supply or quality of our product candidates or other materials necessary to conduct clinical trials of our product candidates being insufficient or inadequate;
- having patients complete a clinical trial or return for post-treatmentfollow-up;
- clinical trial sites deviating from trial protocol or dropping out of a trial;
- adding new clinical trial sites; or
- manufacturing sufficient quantities of our product candidates for use in clinical trials.

Patient enrollment, a significant factor in the timing of clinical trials, is affected by many factors including the size and nature of the patient population, the proximity of patients to clinical sites, the eligibility criteria for the trial, the design of the clinical trial, competing clinical trials and clinicians' and patients' perceptions as to the potential advantages of the product candidate being studied in relation to other available therapies, including any new drugs or therapeutic biologics that may be approved for the indications being investigated by us. Furthermore, we expect to rely on our collaborators, CROs and clinical trial sites to ensure the proper and timely conduct of our clinical trials and, while we expect to enter into agreements governing their committed activities, we have limited influence over their actual performance.

We could encounter delays if prescribing physicians encounter unresolved ethical issues associated with enrolling patients in clinical trials of our product candidates in lieu of prescribing existing treatments that have established safety and efficacy profiles.

Further, a clinical trial may be suspended or terminated by us, our collaborators, the IRBs of the institutions in which such trials are being conducted, the Data Safety Monitoring Board for such trial or placed on clinical hold by the FDA or other regulatory authorities due to a number of factors, including failure to conduct the clinical trial in accordance with regulatory requirements or our clinical protocols, inspection of the clinical trial operations or trial site by the FDA or other regulatory authorities resulting in the imposition of a clinical hold, unforeseen safety issues or adverse side effects, failure to demonstrate a benefit from using a drug or therapeutic biologic, changes in governmental regulations or administrative actions or lack of adequate funding to continue the clinical trial. If we experience delays in the completion of, or termination of, any clinical trial of our product candidates, the commercial prospects of our product candidates will be harmed, and our ability to generate product revenues from any of these product candidates will be delayed. In addition, any delays in completing our clinical trials will increase our costs, slow down our product development and approval process and jeopardize our ability to commence product sales and generate revenues. Any of these occurrences could materially and adversely affect our business, financial condition, results of operations and prospects. In addition, many of the factors that cause, or lead to, a delay in the commencement or completion of clinical trials may also ultimately lead to the denial of regulatory approval of our product candidates.

We and/or our collaborators may be unable to obtain, or may be delayed in obtaining, U.S. or foreign regulatory approval and, as a result, unable to commercialize our product candidates.

Our product candidates are subject to extensive governmental regulations relating to, among other things, research, testing, development, manufacturing, safety, efficacy, approval, recordkeeping, reporting, labeling, storage, packaging, advertising and promotion, pricing, marketing and distribution of drugs and therapeutic biologics. Rigorous preclinical testing and clinical trials and an extensive regulatory approval process are required to be completed successfully in the United States and in many foreign jurisdictions before a new drug or therapeutic biologic can be marketed. Satisfaction of these and other regulatory requirements is costly, time consuming, uncertain and subject to unanticipated delays. It is possible that none of the product candidates we may develop, either alone or with our collaborators, will obtain the regulatory approvals necessary for us or our existing or future collaborators to begin selling them.

Although our employees have experience in conducting and managing clinical trials from prior employment at other companies, we, as a company, have no prior experience in conducting and managing the clinical trials necessary to obtain regulatory approvals, including approval by the FDA. The time required to obtain FDA and other approvals is unpredictable but typically takes many years following the commencement of clinical trials, depending upon the type, complexity and novelty of the product candidate. The standards that the FDA and its foreign counterparts use when regulating us require judgment and can change, which makes it difficult to predict with certainty their application. Any

analysis we perform of data from preclinical and clinical activities is subject to confirmation and interpretation by regulatory authorities, which could delay, limit or prevent regulatory approval. We or our collaborators may also encounter unexpected delays or increased costs due to new government regulations, for example, from future legislation or administrative action, or from changes in FDA policy during the period of product development, clinical trials and FDA regulatory review. It is impossible to predict whether legislative changes will be enacted, or whether FDA or foreign regulations, guidance or interpretations will be changed, or the impact of such changes, if any.

Given that the product candidates we are developing, either alone or with our collaborators, represent a new approach to the manufacturing and type of therapeutic biologics, the FDA and its foreign counterparts have not yet established any definitive policies, practices or guidelines in relation to these product candidates. Moreover, the FDA may respond to any BLA, that we may submit by defining requirements that we do not anticipate. Such responses could delay clinical development of our product candidates. In addition, because there may be approved treatments for some of the diseases for which we may seek approval, in order to receive regulatory approval, we may need to demonstrate through clinical trials that the product candidates we develop to treat these diseases, if any, are not only safe and effective, but safer or more effective than existing products. Furthermore, in recent years, there has been increased public and political pressure on the FDA with respect to the approval process for new drugs and therapeutic biologics, and FDA standards, especially regarding product safety, appear to have become more stringent.

Any delay or failure in obtaining required approvals could have a material and adverse effect on our ability to generate revenues from the particular product candidate for which we are seeking approval. Furthermore, any regulatory approval to market a product may be subject to limitations on the approved uses for which we may market the product or on the labeling or other restrictions. In addition, the FDA has the authority to require a risk evaluation and mitigation strategies, or REMS, plan as part of a BLA or after approval, which may impose further requirements or restrictions on the distribution or use of an approved biologic, such as limiting prescribing to certain physicians or medical centers that have undergone specialized training, limiting treatment to patients who meet certain safe-use criteria and requiring treated patients to enroll in a registry. These limitations and restrictions may limit the size of the market for the product and affect reimbursement by third-party payors.

We are also subject to numerous foreign regulatory requirements governing, among other things, the conduct of clinical trials, manufacturing and marketing authorization, pricing and third-party reimbursement. The foreign regulatory approval process varies among countries and may include all of the risks associated with FDA approval process described above, as well as risks attributable to the satisfaction of local regulations in foreign jurisdictions. Moreover, the time required to obtain approval may differ from that required to obtain FDA approval. FDA approval does not ensure approval by regulatory authorities outside the United States and vice versa. Any delay or failure to obtain U.S. or foreign regulatory approval for a product candidate could have a material and adverse effect on our business, financial condition, results of operations and prospects.

Delays in obtaining regulatory approval of our manufacturing process may delay or disrupt our commercialization efforts. To date, no product using a cell-free manufacturing process in the United States has received approval from the FDA.

Before we can begin to commercially manufacture our product candidates in third-party or our own facilities, we must obtain regulatory approval from the FDA for a BLA that describes in detail the chemistry, manufacturing, and controls for the product. A manufacturing authorization must also be obtained from the appropriate EU regulatory authorities. The timeframe required to obtain such approval or authorization is uncertain. In addition, we must pass a pre-approval inspection of our manufacturing facility by the FDA before any of our product candidates can obtain marketing approval, if ever. In order to obtain approval, we will need to ensure that all of our processes, methods and

equipment are compliant with cGMP, and perform extensive audits of vendors, contract laboratories and suppliers. If any of our vendors, contract laboratories or suppliers is found to be out of compliance with cGMP, we may experience delays or disruptions in manufacturing while we work with these third parties to remedy the violation or while we work to identify suitable replacement vendors. The cGMP requirements govern quality control of the manufacturing process and documentation policies and procedures. In complying with cGMP, we will be obligated to expend time, money and effort in production, record keeping and quality control to assure that the product meets applicable specifications and other requirements. If we fail to comply with these requirements, we would be subject to possible regulatory action and may not be permitted to sell any products that we may develop.

Even if we receive regulatory approval for any of our product candidates, we will be subject to ongoing regulatory obligations and continued regulatory review, which may result in significant additional expense. Additionally, our product candidates, if approved, could be subject to labeling and other restrictions and market withdrawal. We may also be subject to penalties if we fail to comply with regulatory requirements or experience unanticipated problems with our products.

Any regulatory approvals that we or our existing or future collaborators obtain for our product candidates may also be subject to limitations on the approved indicated uses for which a product may be marketed or to the conditions of approval, or contain requirements for potentially costly post-marketing testing, including Phase 4 clinical trials, and surveillance to monitor the safety and efficacy of the product candidate.

In addition, if the FDA or a comparable foreign regulatory authority approves any of our product candidates, the manufacturing processes, labeling, packaging, distribution, adverse event reporting, storage, import, export, advertising, promotion and recordkeeping for the product will be subject to extensive and ongoing regulatory requirements. The FDA has significant post-market authority, including the authority to require labeling changes based on new safety information and to require post-market studies or clinical trials to evaluate safety risks related to the use of a product or to require withdrawal of the product from the market. The FDA also has the authority to require a REMS plan after approval, which may impose further requirements or restrictions on the distribution or use of an approved drug or therapeutic biologic. The manufacturing facilities we use to make a future product, if any, will also be subject to periodic review and inspection by the FDA and other regulatory agencies, including for continued compliance with cGMP requirements. The discovery of any new or previously unknown problems with our third-party manufacturers, manufacturing processes or facilities may result in restrictions on the product, manufacturer or facility, including withdrawal of the product from the market. If we rely on third-party manufacturers, we will not have control over compliance with applicable rules and regulations by such manufacturers. Any product promotion and advertising will also be subject to regulatory requirements and continuing regulatory review. If we or our existing or future collaborators, manufacturers or service providers fail to comply with applicable continuing regulatory requirements in the United States or foreign jurisdictions in which we seek to market our products, we or they may be subject to, among other things, fines, warning letters, holds on clinical trials, delay of approval or refusal by the FDA or similar foreign regulatory bodies to approve pending applications or supplements to approved applications, suspension or withdrawal of regulatory approval, product recalls and seizures, administrative detention of products, refusal to permit the import or export of products, operating restrictions, injunction, civil penalties and criminal prosecution.

Subsequent discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, or with our third-party manufacturers or manufacturing processes, or failure to comply with regulatory requirements, may result in, among other things:

- restrictions on the marketing or manufacturing of the product, withdrawal of the product from the market or voluntary or mandatory product recalls;
- fines, warning or untitled letters or holds on clinical trials;
- refusal by the FDA to approve pending applications or supplements to approved applications filed by us or our strategic partners;
- suspension or revocation of product license approvals;
- product seizure or detention or refusal to permit the import or export of products; and
- injunctions or the imposition of civil or criminal penalties.

The FDA policies may change and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of our product candidates. For example, in December 2016, the 21st Century Cures Act, or Cures Act, was signed into law. The Cures Act, among other things, is intended to modernize the regulation of drugs and biologics and to spur innovation, but its ultimate implementation is unclear. 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, which would adversely affect our business.

We also 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 current U.S. presidential administration may impact our business and industry. Namely, the current U.S. presidential administration has taken several executive actions, including the issuance of a number of executive orders, that could impose significant burdens on, or otherwise materially delay, the FDA's ability to engage in routine regulatory and oversight activities such as implementing statutes through rulemaking, issuance of guidance, and review and approval of marketing applications. Notably, on January 23, 2017, the current U.S. presidential administration ordered a hiring freeze for all executive departments and agencies, including the FDA, which prohibited the FDA from filling employee vacancies or creating new positions. Under the terms of the executive order, the freeze was to remain in effect until implementation of a plan recommended by the Director for the Office of Management and Budget, or OMB, in consultation with the Director of the Office of Personnel Management, to reduce the size of the federal workforce through attrition. While the general hiring freeze was lifted on April 12, 2017, the FDA remained under a hiring freeze until May 25, 2017. However, the fiscal 2018 budget proposal for the FDA still calls for overall reductions in the FDA workforce, mostly through attrition. We believe an under-staffed FDA could result in delays in the FDA's responsiveness or in its ability to review submissions or applications, issue regulations or guidance, or implement or enforce regulatory requirements in a timely fashion or at all. Moreover, on January 30, 2017, the current U.S. presidential administration issued an executive order, applicable to all executive agencies, including the FDA, which requires that for each notice of proposed rulemaking or final regulation to be issued in fiscal year 2017, the agency shall identify at least two existing regulations to be repealed, unless prohibited by law. These requirements are referred to as the "two-for-one" provisions. This executive order includes a budget neutrality provision that requires the total incremental cost of all new regulations in the 2017 fiscal year, including repealed regulations, to be no greater than zero, except in limited circumstances. For fiscal years 2018 and beyond, the executive order requires agencies to identify regulations to offset any incremental cost of a new regulation and approximate the total costs or savings associated with each new regulation or repealed regulation. In interim guidance issued by the Office of Information and Regulatory Affairs within OMB on February 2, 2017, the administration indicates that the "two-for-one" provisions may apply not only

to agency regulations, but also to significant agency guidance documents. It is difficult to predict how these requirements 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 constraints on the FDA's ability to engage in oversight and implementation activities in the normal course, our business may be negatively impacted.

We may face difficulties from healthcare legislative reform measures.

Existing regulatory policies 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 action, either in the United States or abroad. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are 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.

In the United States, there have been and continue to be a number of legislative initiatives to contain healthcare costs. For example, in March 2010, the Patient Protection and Affordable Care Act, as amended by the Healthcare and Education Reconciliation Act, or together, the ACA, was enacted, which substantially changed the way healthcare is financed by both governmental and private insurers, and significantly impacts the U.S. pharmaceutical industry. The ACA, among other things, (i) subjected therapeutic biologics to potential competition by lower-cost biosimilars by creating a licensure framework for follow on biologic products, (ii) proscribed a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for drugs and therapeutic biologics that are inhaled, infused, instilled, implanted or injected, (iii) increased the minimum Medicaid rebates owed by manufacturers under the Medicaid Drug Rebate Program and extended the rebate program to individuals enrolled in Medicaid managed care organizations, (iv) established annual fees and taxes on manufacturers of certain branded prescription drugs and therapeutic biologics, (v) established a new Medicare Part D coverage gap discount program, in which manufacturers must agree to offer 50% point-of-sale discounts off negotiated prices of applicable brand drugs and therapeutic biologics to eligible beneficiaries during their coverage gap period, as a condition for the manufacturer's outpatient drugs and therapeutic biologics to be covered under Medicare Part D, (vi) expanded eligibility criteria for Medicaid programs by, among other things, allowing states to offer Medicaid coverage to additional individuals and by adding new mandatory eligibility categories for individuals with income at or below 133% of the federal poverty level, thereby potentially increasing manufacturers' Medicaid rebate liability, (vii) expanded the entities eligible for discounts under the Public Health program (viii) created a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research and (ix) established 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.

The current U.S. presidential administration and U.S. Congress have sought, and we expect they will continue to, seek to modify, repeal, or otherwise invalidate all, or certain provisions of, the ACA. Since January 2017, the current U.S. presidential administration has issued two executive orders and other directives designed to delay the implementation of the certain provisions of the ACA or otherwise circumvent some of the requirements for health insurance mandated by the ACA. For example, on October 12, 2017, the current U.S. presidential administration issued an executive order that expands the use of association health plans and allows anyone to purchase short-term health plans that provide temporary, limited insurance. This executive order also calls for the halt of federal payments to health insurers for cost-sharing reductions previously available to lower-income Americans to afford coverage. There is still uncertainty with respect to the impact this executive order could have on coverage and reimbursement for healthcare items and services covered by plans that were authorized by the ACA.

Concurrently, Congress has considered legislation that would repeal or repeal and replace all or part of the ACA. While Congress has not passed comprehensive repeal legislation, two bills affecting the implementation of certain taxes under the ACA have been signed into law. The Tax Reform Act, among other things, 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". Additionally, on January 22, 2018, the current U.S. presidential administration signed a continuing resolution on appropriations for fiscal year 2018 that delayed the implementation of certain ACA-mandated fees, including the so-called "Cadillac" tax on certain high cost employer-sponsored insurance plans, the annual fee imposed on certain health insurance providers based on market share, and the medical device excise tax on non-exempt medical devices. Further, the Bipartisan Budget Act of 2018, or the BBA, among other things, amends the ACA, effective January 1, 2019, to increase from 50 percent to 70 percent the point-of-sale discount that is owed by pharmaceutical manufacturers who participate in Medicare Part D and to close the coverage gap in most Medicare drug plans, commonly referred to as the "donut hole". There is still uncertainty with respect to the impact the current U.S. presidential administration and Congress may have, if any, and any changes will likely take time to unfold, and could have an impact on coverage and reimbursement for healthcare items and services covered by plans that were authorized by the ACA. However, we cannot predict the ultimate content, timing or effect of any healthcare reform legislation or the impact of potential legislation on us.

In addition, other legislative changes have been proposed and adopted in the United States since the ACA was enacted to reduce healthcare expenditures. U.S. federal government agencies also currently face potentially significant spending reductions, which may further impact healthcare expenditures. On August 2, 2011, the Budget Control Act of 2011 among other things, created measures for spending reductions by Congress. A joint select committee on deficit reduction, tasked with recommending a targeted deficit reduction of at least $1.2 trillion for the years 2013 through 2021, was unable to reach required goals, thereby triggering the legislation's automatic reduction to several government programs. This includes aggregate reductions of Medicare payments to providers of 2% per fiscal year. These reductions went into effect on April 1, 2013 and, due to subsequent legislative amendments to the statute, including the BBA, will remain in effect through 2027 unless additional Congressional action is taken. Moreover, on January 2, 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. If federal spending is further reduced, anticipated budgetary shortfalls may also impact the ability of relevant agencies, such as the FDA or the National Institutes of Health to continue to function at current levels. Amounts allocated to federal grants and contracts may be reduced or eliminated. These reductions may also impact the ability of relevant agencies to timely review and approve research and development, manufacturing, and marketing activities, which may delay our ability to develop, market and sell any products we may develop.

Moreover, payment methodologies, including payment for companion diagnostics, may be subject to changes in healthcare legislation and regulatory initiatives. For example, the Medicare Prescription Drug, Improvement, and Modernization Act of 2003, or MMA, changed the way Medicare covers and pays for pharmaceutical products. The legislation expanded Medicare coverage for drug purchases by the elderly and introduced a new reimbursement methodology based on average sales prices for physician-administered drugs. In addition, this legislation provided authority for limiting the number of drugs that will be covered in any therapeutic class. While the MMA only applies to drug benefits for Medicare beneficiaries, private payors often follow Medicare coverage policy and payment limitations in setting their own reimbursement rates. Therefore, any reduction in reimbursement that results from the MMA may result in a similar reduction in payments from private payors. In addition, CMS has begun bundling the Medicare payments for certain laboratory tests ordered while a patient received

services in a hospital outpatient setting and, beginning in 2018, CMS will pay for clinical laboratory services based on a weighted average of reported prices that private payors, Medicare Advantage plans, and Medicaid Managed Care plans pay for laboratory services. Further, on March 16, 2018, CMS finalized its National Coverage Determination, or NCD, for certain diagnostic laboratory tests using next generation sequencing that are approved by the FDA as a companion *in vitro* diagnostic and used in a cancer with an FDA-approved companion diagnostic indication. Under the NCD, diagnostic tests that gain FDA approval or clearance as an *in vitro* companion diagnostic will automatically receive full coverage and be available for patients with recurrent, metastatic relapsed, refractory or stages III and IV cancer. Additionally, the NCD extended coverage to repeat testing when the patient has a new primary diagnosis of cancer.

Recently there has 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 current U.S. presidential 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. Additionally, on May 11, 2018, the current U.S. presidential administration laid out the administration's "Blueprint" to reduce the cost of prescription medications while preserving innovation and cures. While the Department of Health and Human Services, or HHS, is soliciting feedback on some of these measures, other actions may be immediately implemented by HHS under existing authority. Although a number of these, and other potential, proposals will require authorization through additional legislation to become effective, Congress and the current U.S. presidential 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 are increasingly passing legislation and implementing regulations designed to control pharmaceutical and biological product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing. We expect that additional state and federal healthcare reform measures will be adopted in the future, any of which could limit the amounts that federal and state governments will pay for healthcare products and services, which could result in reduced demand for our product candidates or companion diagnostics or additional pricing pressures.

Additionally, on May 30, 2018, the Trickett Wendler, Frank Mongiello, Jordan McLinn, and Matthew Bellina Right to Try Act of 2017 was signed into law. The law, among other things, provides a federal framework for certain patients to access certain investigational new drug products that have completed a Phase I clinical trial and that are undergoing investigation for FDA approval. Under certain circumstances, eligible patients can seek treatment without enrolling in clinical trials and without obtaining FDA authorization under an FDA expanded access program.

We expect that the ACA, as well as other healthcare reform measures that may be adopted in the future, may result in more rigorous coverage criteria and in additional downward pressure on the price that we receive for any approved product. The implementation of cost containment measures or other healthcare reforms may prevent us from being able to generate revenue, attain profitability, or commercialize our products.

Our operations and relationships with healthcare providers, healthcare organizations, customers and third-party payors will be subject to applicable anti-bribery, anti-kickback, fraud

and abuse, transparency and other healthcare laws and regulations, which could expose us to, among other things, enforcement actions, criminal sanctions, civil penalties, contractual damages, reputational harm, administrative burdens and diminished profits and future earnings.

Our current and future arrangements with healthcare providers, healthcare organizations, third-party payors and customers expose us to broadly applicable anti-bribery, fraud and abuse and other healthcare laws and regulations that may constrain the business or financial arrangements and relationships through which we research, market, sell and distribute our product candidates. In addition, we may be subject to patient data privacy and security regulation by the U.S. federal government and the states and the foreign governments in which we conduct our business. Restrictions under applicable federal and state anti-bribery and healthcare laws and regulations, include the following:

- the federal Anti-Kickback Statute, which prohibits, among other things, individuals and entities from knowingly and willfully soliciting, offering, receiving or providing remuneration, directly or indirectly, in cash or in kind, to induce or reward, or in return for, either the referral of an individual for, or the purchase, order or recommendation of, any good or service, for which payment may be made under a federal and state 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 federal criminal and civil false claims and civil monetary penalties laws, including the federal False Claims Act, which can be imposed through civil whistleblower or qui tam actions against individuals or entities, prohibits, among other things, knowingly presenting, or causing to be presented, to the federal government, claims for payment 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 federal government. In addition, the government may assert that a claim including items and services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the federal False Claims Act;
- HIPAA, which imposes criminal and civil liability, prohibits, 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 federal Anti-Kickback Statute, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation;
- HIPAA, as amended by HITECH, which impose obligations on certain healthcare providers, health plans, and healthcare clearinghouses, known as covered entities, as well as their business associates that perform certain services involving the storage, use or disclosure of individually identifiable health information, including mandatory contractual terms, with respect to safeguarding the privacy, security, and transmission of individually identifiable health information, and require notification to affected individuals and regulatory authorities of certain breaches of security of individually identifiable health information;
- the federal legislation commonly referred to as Physician Payments Sunshine Act, enacted as part of the ACA, and its implementing regulations, which requires certain manufacturers of covered drugs, devices, biologics and medical supplies that are reimbursable under Medicare, Medicaid, or the Children's Health Insurance Program, with certain exceptions, to report annually to the CMS information related to certain payments and other transfers of value to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors) and teaching hospitals, as well as ownership and investment interests held by the physicians

described above and their immediate family members, with the information made publicly available on a searchable website;

- 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;
- analogous state and foreign laws and regulations, such as state anti-kickback and false claims laws, that may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third-party payors, including private insurers; and
- certain state laws that require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government in addition to requiring drug and therapeutic biologics manufacturers to report information related to payments to physicians and other healthcare providers or marketing expenditures and pricing information, state and local laws that require 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.

If we or our collaborators, manufacturers or service providers fail to comply with applicable federal, state or foreign laws or regulations, we could be subject to enforcement actions, which could affect our ability to develop, market and sell our products successfully and could harm our reputation and lead to reduced acceptance of our products by the market. These enforcement actions include, among others:

- exclusion from participation in government-funded healthcare programs; and
- exclusion from eligibility for the award of government contracts for our products.

Efforts to ensure that our current and future business arrangements with third parties comply with applicable healthcare laws and regulations could 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 such requirements, we may be subject to significant penalties, including civil, criminal and administrative penalties, damages, fines, disgorgement, imprisonment, the curtailment or restructuring of our operations, loss of eligibility to obtain approvals from the FDA, exclusion from participation in government contracting, healthcare reimbursement or other government programs, including Medicare and Medicaid, integrity oversight and reporting obligations, or reputational harm, any of which could adversely our financial results. Although effective compliance programs can mitigate the risk of investigation and prosecution for violations of these laws, these risks cannot be entirely eliminated. Any action against us for an alleged or suspected violation could cause us to incur significant legal expenses and could divert our management's attention from the operation of our business, even if our defense is successful. In addition, achieving and sustaining compliance with applicable laws and regulations may be costly to us in terms of money, time and resources.

Even if we are able to commercialize any product candidate, such product candidate may become subject to unfavorable pricing regulations or third-party coverage and reimbursement policies, which would harm our business.

The regulations that govern regulatory approvals, pricing and reimbursement for new drugs and therapeutic biologics vary widely from country to country. Some countries require approval of the sale price of a drug or therapeutic biologic before it can be marketed. In many countries, the pricing review

period begins after marketing approval is granted. In some foreign markets, prescription biopharmaceutical pricing remains subject to continuing governmental control even after initial approval is granted. As a result, we might obtain regulatory approval for a product in a particular country, but then be subject to price regulations that delay our commercial launch of the product, possibly for lengthy time periods and negatively impact the revenues we are able to generate from the sale of the product in that country. Adverse pricing limitations may hinder our ability to recoup our investment in one or more product candidates, even if our product candidates obtain regulatory approval.

Our ability to commercialize any products successfully also will depend in part on the extent to which coverage and adequate reimbursement for these products and related treatments will be available from government authorities, private health insurers and other organizations. Even if we succeed in bringing one or more products to the market, these products may not be considered cost-effective, and the amount reimbursed for any products may be insufficient to allow us to sell our products on a competitive basis. Because our programs are in the early stages of development, we are unable at this time to determine their cost effectiveness or the likely level or method of coverage and reimbursement. Increasingly, the third-party payors who reimburse patients or healthcare providers, such as government and private insurance plans, are requiring that drug companies provide them with predetermined discounts from list prices, and are seeking to reduce the prices charged or the amounts reimbursed for biopharmaceutical products. If the price we are able to charge for any products we develop, or the coverage and reimbursement provided for such products, is inadequate in light of our development and other costs, our return on investment could be affected adversely.

There may be significant delays in obtaining reimbursement for newly approved drugs or therapeutic biologics, and coverage may be more limited than the purposes for which the drug or therapeutic biologic is approved by the FDA or similar foreign regulatory authorities. Moreover, eligibility for reimbursement does not imply that any drug or therapeutic biologic will be reimbursed in all cases or at a rate that covers our costs, including research, development, manufacture, sale and distribution.

Interim reimbursement levels for new drugs or therapeutic biologics, if applicable, may also be insufficient to cover our costs and may not be made permanent. Reimbursement rates may be based on payments allowed for lower cost drugs or therapeutic biologics that are already reimbursed, may be incorporated into existing payments for other services and may reflect budgetary constraints or imperfections in Medicare data. Net prices for drugs or therapeutic biologics may be reduced by mandatory discounts or rebates required by government healthcare programs or private payors and by any future relaxation of laws that presently restrict imports of drugs or therapeutic biologics from countries where they may be sold at lower prices than in the United States. Further, no uniform policy for coverage and reimbursement exists in the United States, and coverage and reimbursement can differ significantly from payor to payor. Third-party payors often rely upon Medicare coverage policy and payment limitations in setting their own reimbursement rates, but also have their own methods and approval process apart from Medicare determinations. Our inability to promptly obtain coverage and adequate reimbursement rates from both government-funded and private payors for new drugs or therapeutic biologics that we develop and for which we obtain regulatory approval could have a material and adverse effect on our business, financial condition, results of operations and prospects.

If in the future we are unable to establish U.S. or global sales and marketing capabilities or enter into agreements with third parties to sell and market our product candidates, we may not be successful in commercializing our product candidates if they are approved and we may not be able to generate any revenue.

We currently do not have a marketing or sales team for the marketing, sales and distribution of any of our product candidates that are able to obtain regulatory approval. To commercialize any product

candidates after approval, we must build on a territory-by-territory basis 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 our product candidates receive regulatory approval, we may decide to establish an internal sales or marketing team with technical expertise and supporting distribution capabilities to commercialize our product candidates, which will be expensive and time consuming and will require significant attention of our executive officers to manage. For example, some state and local jurisdictions have licensing and continuing education requirements for pharmaceutical sales representatives, which requires time and financial resources. Any failure or delay in the development of our internal sales, marketing and distribution capabilities would adversely impact the commercialization of any of our product candidates that we obtain approval to market.

With respect to the commercialization of all or certain of our product candidates, we may choose to collaborate, either globally or on a territory-by-territory basis, 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 when needed on acceptable terms, or at all, we may not be able to successfully commercialize any of our product candidates that receive regulatory approval or any such commercialization may experience delays or limitations. If we are not successful in commercializing our product candidates, either on our own or through collaborations with one or more third parties, our future product revenue will suffer and we may incur significant additional losses.

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

With the enactment of the Biologics Price Competition and Innovation Act of 2009, or BPCIA, an abbreviated pathway for the approval of biosimilar and interchangeable biological products was created. The abbreviated regulatory pathway establishes legal authority for the FDA to review and approve biosimilar biologics, including the possible designation of a biosimilar as interchangeable based on its similarity to an existing reference product. Under the BPCIA, an application for a biosimilar product cannot be approved by the FDA until 12 years after the original branded product is approved under a BLA. On March 6, 2015, the FDA approved the first biosimilar product under the BPCIA. However, the law is complex and is still being interpreted and implemented by the FDA. As a result, its ultimate impact, implementation, and meaning are subject to uncertainty. While it is uncertain when the processes intended to implement BPCIA may be fully adopted by the FDA, any such processes could have a material adverse effect on the future commercial prospects for our biological products.

We believe that if any of our product candidates are approved as a biological product under a BLA, it should qualify for the 12-year period of exclusivity. However, there is a risk that the FDA will not consider any of our product candidates to be reference products for competing products, potentially creating the opportunity for biosimilar competition sooner than anticipated. Additionally, this period of regulatory exclusivity does not apply to companies pursuing regulatory approval via their own traditional BLA, rather than via the abbreviated pathway. Moreover, the extent to which a biosimilar, once approved, will be substituted for any one of our reference products that may be approved in a way that is similar to traditional generic substitution for non-biological products is not yet clear, and will depend on a number of marketplace and regulatory factors that are still developing.

If any of our product candidates receives marketing approval and we or others later identify undesirable side effects caused by the product candidate, our ability to market and derive revenue from the product candidates could be compromised.

Undesirable side effects caused by our product candidates could cause regulatory authorities to interrupt, delay or halt clinical trials and could result in more restrictive labeling or the delay or denial of regulatory approval by the FDA or other regulatory authorities. We have only recently initiated our first clinical trial for the first of our product candidates. Given its nature as an ADC, it is likely that there may

be side effects associated with its use. Results of our clinical trials could reveal a high and unacceptable severity and prevalence of side effects. In such an event, our clinical trials could be suspended or terminated and the FDA or comparable foreign regulatory authorities could order us to cease further development of or deny approval of our product candidates for any or all targeted indications. Such side effects could also affect patient recruitment or the ability of enrolled patients to complete the clinical trial or result in potential product liability claims. Any of these occurrences may materially and adversely affect our business, financial condition, results of operations and prospects.

Further, clinical trials by their nature utilize a sample of the potential patient population. With a limited number of patients and limited duration of exposure, rare and severe side effects of our product candidates may only be uncovered with a significantly larger number of patients exposed to the product candidate.

In the event that any of our product candidates receive regulatory approval and we or others identify undesirable side effects caused by one of our products, any of the following adverse events could occur:

- regulatory authorities may withdraw their approval of the product or seize the product;
- we may be required to recall the product or change the way the 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;
- we may be subject to fines, injunctions or the imposition of civil or criminal penalties;
- regulatory authorities may require the addition of labeling statements, such as a black boxed warning or a contraindication;
- we may be required to 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 these occurrences could have a material and adverse effect on our business, financial condition, results of operations and prospects.

If we decide to pursue a Fast Track Designation by the FDA, it may not lead to a faster development or regulatory review or approval process.

We may seek Fast Track Designation for one or more of our product candidates. If a drug or biologic is intended for the treatment of a serious or life-threatening condition and the drug or biologic demonstrates the potential to address unmet medical needs for this condition, the product sponsor may apply for FDA Fast Track Designation. The FDA has broad discretion whether or not to grant this designation, so even if we believe a particular product candidate is eligible for this designation, we cannot assure you that the FDA would decide to grant it. Even if we do receive Fast Track Designation, we may not experience a faster development process, review or approval compared to conventional FDA procedures. The FDA may withdraw Fast Track Designation if it believes that the designation is no longer supported by data from our clinical development program.

If we decide to seek Orphan Drug Designation for some of our product candidates, we may be unsuccessful or may be unable to maintain the benefits associated with Orphan Drug Designation, including the potential for supplemental market exclusivity.

As part of our business strategy, we may seek Orphan Drug Designation for one or more of our product candidates, and we may be unsuccessful. Regulatory authorities in some jurisdictions,

including the United States and Europe, may designate drugs and therapeutic biologics for relatively small patient populations as orphan drugs. Under the Orphan Drug Act, the FDA may designate a drug or therapeutic biologic as an orphan drug if it is a drug or therapeutic biologic intended to treat a rare disease or condition, which is generally defined as a patient population of fewer than 200,000 individuals 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 or therapeutic biologic will be recovered from sales in the United States. In the United States, Orphan Drug Designation entitles a party to financial incentives such as opportunities for grant funding toward clinical trial costs, tax advantages and user fee waivers. In addition, 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 exclusivity, which means that the FDA may not approve any other applications, including a full BLA, to market the same product for the same indication for seven years, except in limited circumstances, such as a showing of clinical superiority to the product with orphan drug exclusivity or where the manufacturer is unable to assure sufficient product quantity.

Even if we obtain Orphan Drug Designation for our product candidates in specific indications, we may not be the first to obtain marketing approval of these product candidates for the orphan-designated indication due to the uncertainties associated with developing pharmaceutical products. In addition, exclusive marketing rights in the United States may be limited if we seek approval for an indication broader than the orphan-designated indication or 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. Further, even if we obtain orphan drug exclusivity for a product, that exclusivity may not effectively protect the product from competition because different drugs or therapeutic biologics with different principal molecular structural features can be approved for the same condition. Even after an orphan product is approved, the FDA can subsequently approve the same drug or therapeutic biologic with the same principal molecular structural features for the same condition if the FDA concludes that the later drug or therapeutic biologic 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 therapeutic biologic nor gives the drug or therapeutic biologic any advantage in the regulatory review or approval process. In addition, while we may seek Orphan Drug Designation for our product candidates, we may never receive such designations.

The recent tax reform legislation, which was signed into law on December 22, 2017 reduced the amount of the qualified clinical research costs for a designated orphan product that a sponsor may claim as a credit from 50% to 25%. Thus, further limiting the advantage and may impact our future business strategy of seeking the Orphan Drug Designation.

Risks Related to Our Common Stock and This Offering

Our quarterly operating results may fluctuate significantly or may fall below the expectations of investors or securities analysts, each of which may cause our stock price to fluctuate or decline.

We expect our operating results to be subject to quarterly fluctuations. Our net loss and other operating results will be affected by numerous factors, including:

- variations in the level of expense related to the ongoing development of our XpressCF Platform, our product candidates or future development programs;
- results of preclinical and clinical trials, or the addition or termination of clinical trials or funding support by us, or existing or future collaborators or licensing partners;

- our execution of any additional collaboration, licensing or similar arrangements, and the timing of payments we may make or receive under existing or future arrangements or the termination or modification of any such existing or future arrangements;
- any intellectual property infringement lawsuit or opposition, interference or cancellation proceeding in which we may become involved;
- additions and departures of key personnel;
- strategic decisions by us or our competitors, such as acquisitions, divestitures, spin-offs, joint ventures, strategic investments or changes in business strategy;
- if any of our product candidates receives regulatory approval, the terms of such approval and market acceptance and demand for such product candidates;
- regulatory developments affecting our product candidates or those of our competitors; and
- changes in general market and economic conditions.

If our quarterly operating results fall below the expectations of investors or securities analysts, the price of our common stock could decline substantially. Furthermore, any quarterly fluctuations in our operating results may, in turn, cause the price of our common stock to fluctuate substantially. We believe that quarterly comparisons of our financial results are not necessarily meaningful and should not be relied upon as an indication of our future performance.

The market price of our stock may be volatile, and you could lose all or part of your investment.

The trading price of our common stock following this offering is likely to be highly volatile and subject to wide fluctuations in response to various factors, some of which we cannot control. As a result of this volatility, investors may not be able to sell their common stock at or above the initial public offering price. The market price for our common stock may be influenced by many factors, including the other risks described in this section of the prospectus entitled “Risk Factors” and the following:

- results of preclinical studies and clinical trials of our product candidates, or those of our competitors or our existing or future collaborators;
- regulatory or legal developments in the United States and other countries, especially changes in laws or regulations applicable to our product candidates;
- the success of competitive products or technologies;
- introductions and announcements of new products by us, our future commercialization partners, or our competitors, and the timing of these introductions or announcements;
- actions taken by regulatory agencies with respect to our products, clinical studies, manufacturing process or sales and marketing terms;
- actual or anticipated variations in our financial results or those of companies that are perceived to be similar to us;
- the success of our efforts to acquire or in-license additional technologies, products or product candidates;
- developments concerning any future collaborations, including but not limited to those with our sources of manufacturing supply and our commercialization partners;
- market conditions in the pharmaceutical and biotechnology sectors;
- announcements by us or our competitors of significant acquisitions, strategic collaborations, joint ventures or capital commitments;
- developments or disputes concerning patents or other proprietary rights, including patents, litigation matters and our ability to obtain patent protection for our product candidates and products;
- our ability or inability to raise additional capital and the terms on which we raise it;
- the recruitment or departure of key personnel;

- changes in the structure of healthcare payment systems;
- actual or anticipated changes in earnings estimates or changes in stock market analyst recommendations regarding our common stock, other comparable companies or our industry generally;
- our failure or the failure of our competitors to meet analysts' projections or guidance that we or our competitors may give to the market;
- fluctuations in the valuation of companies perceived by investors to be comparable to us;
- announcement and expectation of additional financing efforts;
- speculation in the press or investment community;
- trading volume of our common stock;
- sales of our common stock by us or our stockholders;
- the concentrated ownership of our common stock;
- changes in accounting principles;
- terrorist acts, acts of war or periods of widespread civil unrest;
- natural disasters and other calamities; and
- general economic, industry and market conditions.

In addition, the stock market in general, and the markets for pharmaceutical, biopharmaceutical and biotechnology stocks in particular, have experienced extreme price and volume fluctuations that have been often unrelated or disproportionate to the operating performance of the issuer. These broad market and industry factors may seriously harm the market price of our common stock, regardless of our actual operating performance. The realization of any of the above risks or any of a broad range of other risks, including those described in this "Risk Factors" section, could have a dramatic and adverse impact on the market price of our common stock.

You will experience immediate and substantial dilution as a result of this offering and may experience additional dilution in the future.

If you purchase common stock in this offering, assuming an initial public offering price of $ per share, the midpoint of the estimated price range set forth on the cover of this prospectus, you will incur immediate and substantial dilution of $ per share, representing the difference between the assumed initial public offering price of $ per share and our pro forma net tangible book value per share as of March 31, 2018 after giving effect to this offering and the conversion of all outstanding shares of our redeemable convertible preferred stock upon the completion of this offering and the issuance of shares that we expect to issue, based upon an assumed initial public offering price of $ per share, which is the midpoint of the estimated price range set forth on the cover of this prospectus, upon the net exercise of warrants outstanding as of March 31, 2018 that would otherwise expire upon completion of this offering.

Moreover, we issued options in the past to acquire common stock at prices significantly below the assumed initial public offering price. As of March 31, 2018, there were 30,109,208 shares of common stock subject to outstanding options. To the extent that these outstanding options are ultimately exercised, you will incur further dilution.

The future sale and issuance of equity or of debt securities that are convertible into equity will dilute our share capital.

We may choose to raise additional capital in the future, depending on market conditions, strategic considerations and operational requirements. To the extent that additional capital is raised through the sale and issuance of shares or other securities convertible into shares, our stockholders will be diluted. Future issuances of our common stock or other equity securities, or the perception that such sales may occur, could adversely affect the trading price of our common stock and impair our ability to raise

capital through future offerings of shares or equity securities. No prediction can be made as to the effect, if any, that future sales of common stock or the availability of common stock for future sales will have on the trading price of our common stock.

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

Prior to this offering, no market for shares of our common stock existed and an active trading market for our shares may never develop or be sustained following this offering. The initial public offering price for our common stock will be determined through negotiations with the underwriters and the negotiated price may not be indicative of the market price of our common stock after this offering. The market value of our common stock may decrease from the initial public offering price. As a result of these and other factors, you may be unable to resell your shares of our common stock at or above the initial public offering price. 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. The lack of an active market may also reduce the fair market value of your shares. Furthermore, an inactive market may also impair our ability to raise capital by selling shares of our common stock and may impair our ability to enter into strategic collaborations or acquire companies or products by using our shares of common stock as consideration.

A sale of a substantial number of shares of our common stock may cause the price of our common stock to decline.

Based on shares outstanding as of March 31, 2018, upon completion of this offering, we will have outstanding a total of shares of common stock. Of these shares, only shares of common stock sold in this offering, or shares if the underwriters exercise their option to purchase additional shares in full, will be freely tradable, without restriction, in the public market immediately after this offering. Each of our officers, directors and certain of our stockholders have entered or will enter into lock-up agreements with the underwriters that restrict their ability to sell or transfer their shares. The lock-up agreements pertaining to this offering will expire 180 days from the date of this prospectus. However, our underwriters may, in their sole discretion, permit our officers, directors and other current stockholders who are subject to the contractual lock-up to sell shares prior to the expiration of the lock-up agreements. After the lock-up agreements expire, based on shares outstanding as of March 31, 2018, up to an additional shares of common stock will be eligible for sale in the public market, approximately of which are held by our officers, directors and their affiliated entities, and will be subject to volume limitations under Rule 144 under the Securities Act of 1933, as amended, or the Securities Act. In addition, shares of our common stock that are subject to outstanding options as of March 31, 2018 and shares of our common stock that are subject to options granted after March 31, 2018 will become eligible for sale in the public market to the extent permitted by the provisions of various vesting agreements, the lock-up agreements and Rules 144 and 701 under the Securities Act.

After this offering, the holders of an aggregate of shares of our outstanding common stock as of March 31, 2018 will have rights, subject to some conditions, to require us to file registration statements covering their shares or to include their shares in registration statements that we may file for ourselves or our stockholders. We also intend to register shares of common stock that we may issue under our equity incentive plans. Once we register these shares, they will be able to be sold freely in the public market upon issuance, subject to the 180-day lock-up period under the lock-up agreements described above and in the section entitled “Underwriting.”

We cannot predict what effect, if any, sales of our shares in the public market or the availability of shares for sale will have on the market price of our common stock. However, future sales of substantial amounts of our common stock in the public market, including shares issued upon exercise of

outstanding options or warrants, or the perception that such sales may occur, could adversely affect the market price of our common stock.

We also expect that significant additional capital may be needed in the future to continue our planned operations. To raise capital, we may sell common stock, convertible securities or other equity securities in one or more transactions at prices and in a manner we determine from time to time. These sales, or the perception in the market that the holders of a large number of shares intend to sell shares, could reduce the market price of our common stock.

We will have broad discretion in the use of the net proceeds from this offering and may not use them effectively.

Our management will have broad discretion in the application of the net proceeds from this offering, and you will be relying on the judgment of our management regarding the application of these proceeds. You will not have the opportunity, as part of your investment decision, to assess whether we are using the proceeds appropriately. Our management might not apply our net proceeds in ways that ultimately increase the value of your investment. If we do not invest or apply the net proceeds from this offering in ways that enhance stockholder value, we may fail to achieve expected financial results, which could cause our stock price to decline.

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 common stock could be impacted negatively. 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 preclinical studies and clinical trials and operating results fail to meet the expectations of analysts, our stock price would likely decline. If one or more of such 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 a decline in our stock price or trading volume.

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.

Based on the beneficial ownership of our common stock as of May 30, 2018, prior to this offering, our executive officers, directors, holders of 5% or more of our capital stock and their respective affiliates beneficially owned approximately 70.3% of our voting stock and, upon the completion of this offering, that same group will hold approximately % of our outstanding voting stock (assuming no exercise of the underwriters' option to purchase additional shares, no exercise of outstanding options or warrants and no purchases of shares in this offering by any of this group), in each case assuming the conversion of all outstanding shares of our redeemable convertible preferred stock into shares of our common stock and the net exercise of warrants outstanding that would otherwise expire upon the completion of this offering. As a result, these stockholders, if acting together, will continue to have significant influence over the outcome of corporate actions requiring stockholder approval, including the election of directors, amendment of our organizational documents, any merger, consolidation or sale of all or substantially all of our assets and any other significant corporate transaction. The interests of these stockholders may not be the same as or may even conflict with your interests. For example, these stockholders could delay or prevent a change of control of our company, even if such a change of control would benefit our other stockholders, which could deprive our stockholders of an opportunity to receive a premium for their common stock as part of a sale of our company or our assets and might affect the prevailing market price of our common stock. The significant concentration of stock

ownership may adversely affect the trading price of our common stock due to investors' perception that conflicts of interest may exist or arise.

We are an "emerging growth company" and we cannot be certain if the reduced reporting requirements applicable to emerging growth companies will make our common stock less attractive to investors.

We are an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. For as long as we continue to be an emerging growth company, we may take advantage of exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies, including (i) not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, as amended, or the Sarbanes-Oxley Act, (ii) reduced disclosure obligations regarding executive compensation in this prospectus and our periodic reports and proxy statements and (iii) exemptions from the requirements of holding nonbinding advisory stockholder votes on executive compensation and stockholder approval of any golden parachute payments not approved previously. In addition, as an emerging growth company, we are only required to provide two years of audited financial statements and two years of selected financial data in this prospectus.

We could be an emerging growth company for up to five years following the completion of this offering, although circumstances could cause us to lose that status earlier, including if we are deemed to be a "large accelerated filer," which occurs when the market value of our common stock that is held by non-affiliates exceeds $700 million as of the prior June 30, or if we have total annual gross revenue of $1.07 billion or more during any fiscal year before that time, in which cases we would no longer be an emerging growth company as of the following December 31, or if we issue more than $1.0 billion in non-convertible debt during any three-year period before that time, in which case we would no longer be an emerging growth company immediately. Even after we no longer qualify as an emerging growth company, we may still qualify as a "smaller reporting company," which would allow us to take advantage of many of the same exemptions from disclosure requirements, including not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act and reduced disclosure obligations regarding executive compensation in this prospectus and in our periodic reports and proxy statements. We cannot predict if investors will find our common stock less attractive because we may rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our share price may be more volatile.

Under the JOBS Act, emerging growth companies can also delay adopting new or revised accounting standards until such time as those standards apply to private companies. We have elected to take advantage of the benefits of this extended transition period. Our financial statements may therefore not be comparable to those of companies that comply with such new or revised accounting standards. Until the date that we are no longer an "emerging growth company" or affirmatively and irrevocably opt out of the exemption provided by Section 7(a)(2)(B) of the Securities Act, upon issuance of a new or revised accounting standard that applies to our financial statements and that has a different effective date for public and private companies, we will disclose the date on which adoption is required for non-emerging growth companies and the date on which we will adopt the recently issued accounting standard.

Anti-takeover provisions in our charter documents and under Delaware law could make an acquisition of us, which may be beneficial to our stockholders, more difficult and may prevent attempts by our stockholders to replace or remove our current management.

Our restated certificate of incorporation and our restated bylaws that will be in effect upon completion of this offering contain provisions that could delay or prevent a change in control of our company. These provisions could also make it difficult for stockholders to elect directors who are not

nominated by current members of our board of directors or take other corporate actions, including effecting changes in our management. These provisions:

- establish a classified board of directors so that not all members of our board are elected at one time;
- permit only the board of directors to establish the number of directors and fill vacancies on the board;
- provide that directors may only be removed "for cause" and only with the approval oftwo-thirds of our stockholders;
- require super-majority voting to amend some provisions in our restated certificate of incorporation and restated bylaws;
- authorize the issuance of "blank check" preferred stock that our board could use to implement a stockholder rights plan;
- eliminate the ability of our stockholders to call special meetings of stockholders;
- prohibit stockholder action by written consent, which requires all stockholder actions to be taken at a meeting of our stockholders;
- prohibit cumulative voting; and
- establish advance notice requirements for nominations for election to our board or for proposing matters that can be acted upon by stockholders at annual stockholder meetings.

In addition, our restated certificate of incorporation will provide that 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, or the DGCL, our restated certificate of incorporation, or our restated bylaws; or any action asserting a claim against us that is governed by the internal affairs doctrine. This choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or any of our directors, officers, or other employees, which may discourage lawsuits with respect to such claims. Alternatively, if a court were to find the choice of forum provision contained in our 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 harm our business, operating results and financial condition.

In addition, Section 203 of the DGCL may discourage, delay or prevent a change in control of our company. Section 203 imposes certain restrictions on mergers, business combinations and other transactions between us and holders of 15% or more of our common stock.

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

As a public company, and particularly after we are no longer an emerging growth company, we will incur significant legal, accounting and other expenses that we did not incur as a private company. The Sarbanes-Oxley Act, the Dodd-Frank Wall Street Reform and Consumer Protection Act, the listing requirements of the Nasdaq Global Market and other applicable securities rules and regulations impose various requirements on public companies, including establishment and maintenance of effective disclosure and financial controls and corporate governance practices. Our management and other personnel will need to devote a substantial amount of time to these compliance initiatives. Moreover, we expect these rules and regulations to substantially increase our legal and financial compliance costs and to make some activities more time consuming and costly. For example, we expect that these rules and regulations may make it more difficult and more expensive for us to obtain director and officer liability insurance and we may be required to incur substantial costs to maintain

sufficient coverage. We cannot predict or estimate the amount or timing of additional costs we may incur to respond to these requirements. The impact of these requirements could also make it more difficult for us to attract and retain qualified persons to serve on our board of directors, our board committees or as executive officers. Moreover, these rules and regulations are often subject to varying interpretations, in many cases due to their lack of specificity, and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices.

We are not currently required to comply with the SEC's rules that implement Section 404 of the Sarbanes-Oxley Act, and are therefore not required to make a formal assessment of the effectiveness of our internal control over financial reporting for that purpose. Pursuant to Section 404, we will be required to furnish a report by our management on our internal control over financial reporting. However, while we remain an emerging growth company, we will not be required to include an attestation report on internal control over financial reporting issued by our independent registered public accounting firm. To achieve compliance with Section 404 within the prescribed period, we will be engaged in a process to document and evaluate our internal control over financial reporting, which is both costly and challenging. In this regard, we will need to continue to dedicate internal resources, potentially engage outside consultants and adopt a detailed work plan to assess and document the adequacy of internal control over financial reporting, continue steps to improve control processes as appropriate, validate through testing that controls are functioning as documented and implement a continuous reporting and improvement process for internal control over financial reporting. Despite our efforts, there is a risk that we will not be able to conclude, within the prescribed timeframe or at all, that our internal control over financial reporting is effective as required by Section 404. If we identify one or more material weaknesses, it could result in an adverse reaction in the financial markets due to a loss of confidence in the reliability of our financial statements. In addition, if we are not able to continue to meet these requirements, we may not be able to remain listed on the Nasdaq Global Market.

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

We have never declared or paid cash dividends on our capital stock. We currently intend to retain all of our future earnings, if any, to finance the growth and development of our business. As a result, capital appreciation, if any, of our common stock will be your sole source of gain for the foreseeable future.

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

The market price of our common stock may be volatile and, in the past, companies that have experienced volatility in the market price of their stock have been subject to securities class action litigation. We may be the target of this type of litigation in the future. Securities litigation against us could result in substantial costs and divert our management's attention from other business concerns, which could seriously harm our business.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, including the sections entitled “Prospectus Summary,” “Risk Factors,” “Use of Proceeds,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” and “Business” contains forward-looking statements. The words “believe,” “may,” “will,” “potentially,” “estimate,” “continue,” “anticipate,” “intend,” “could,” “would,” “project,” “plan,” “expect” and similar expressions that convey uncertainty of future events or outcomes are intended to identify forward-looking statements. These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including those described in “Risk Factors” and elsewhere in this prospectus. Moreover, we operate in a competitive and rapidly changing environment, and new risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this prospectus may not occur and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements.

You should not rely upon forward-looking statements as predictions of future events. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance or events and circumstances reflected in the forward-looking statements will be achieved or occur. We undertake no obligation to update publicly any forward-looking statements for any reason after the date of this prospectus to conform these statements to actual results or to changes in our expectations, except as required by law.

You should read this prospectus and the documents that we reference in this prospectus and have filed with the Securities and Exchange Commission as exhibits to the registration statement of which this prospectus is a part with the understanding that our actual future results, levels of activity, performance and events and circumstances may be materially different from what we expect.

MARKET AND INDUSTRY DATA

This prospectus contains estimates and other statistical data made by independent parties and by us relating to our industry and the markets in which we operate, including our general expectations and market position, market opportunity, the incidence of certain medical conditions and other industry data. These data, to the extent they contain estimates or projections, involve a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates or projections. Industry publications and other reports we have obtained from independent parties generally state that the data contained in these publications or other reports have been obtained in good faith or from sources considered to be reliable, but they do not guarantee the accuracy or completeness of such data. The industry in which we operate is subject to risks and uncertainties due to a variety of factors, including those described in the section entitled “Risk Factors.” These and other factors could cause results to differ materially from those expressed in these publications and reports.

USE OF PROCEEDS

We estimate that the net proceeds from our sale of shares of common stock in this offering at an assumed initial public offering price of $ per share, which is the midpoint of the estimated price range set forth on the cover of this prospectus, after deducting the estimated underwriting discounts and commissions and estimated offering expenses, will be approximately $ million, or $ million if the underwriters exercise their option to purchase additional shares in full.

Each $1.00 increase (decrease) in the assumed initial public offering price of $ per share, which is the midpoint of the estimated price range set forth on the cover of this prospectus, would increase (decrease) the net proceeds to us from this offering by $ million, assuming the number of shares offered, as set forth on the cover of this prospectus, remains the same, and after deducting the estimated underwriting discounts and commissions. Similarly, each increase (decrease) of 1,000,000 shares in the number of shares of common stock offered would increase (decrease) the net proceeds that we receive from this offering by $ million, assuming that the assumed initial public offering price remains the same and after deducting the estimated underwriting discounts and commissions.

We currently intend to use the net proceeds we receive from this offering as follows:

- approximately $ million to $ million to fund further development of STRO-001 through ;
- approximately $ million to $ million to fund further development of STRO-002 through ;
- approximately $ million to $ million to fund the further development of our technology platform, including manufacturing, to broaden our pipeline of product candidates; and
- any remaining amounts to fund working capital and general corporate purposes.

Based on our planned use of the net proceeds, we estimate such funds, together with our existing cash and cash equivalents, will be sufficient for us to fund our operating expenses and capital expenditure requirements through at least the next months.

The expected use of the net proceeds from the offering represents our intentions based upon our current plans and business conditions. The amounts we actually expend in these areas, and the timing thereof, may vary significantly from our current intentions and will depend on a number of factors, including the success of research and product development efforts, cash generated from future operations and actual expenses to operate our business. We may use a portion of the net proceeds for the acquisition of, or investment in, businesses that complement our business, although we have no present commitments or agreements.

The amounts and timing of our clinical expenditures and the extent of clinical development may vary significantly depending on numerous factors, including the status, results and timing of our current preclinical studies and clinical trials and those which we may commence in the future, the product approval process with the FDA and other regulatory agencies, our current collaborations and any new collaborations we may enter into with third parties and any unforeseen cash needs. As a result, we cannot predict with any certainty all of the particular uses for the net proceeds or the amounts that we will actually spend on the uses set forth above. Accordingly, our management will have broad discretion in the application of the net proceeds, and investors will be relying on the judgment of our management regarding the application of the net proceeds of this offering.

The expected net proceeds of this offering will not be sufficient for us to fund any of our product candidates through regulatory approval, and we will need to raise substantial additional capital to complete the development and commercialization of our product candidates.

Pending the uses described above, we intend to invest the net proceeds from this offering in short term, investment-grade interest-bearing securities such as money market accounts, certificates of deposit, commercial paper and guaranteed obligations of the U.S. government.

DIVIDEND POLICY

We have never declared or paid cash dividends on our common stock. We currently intend to retain all available funds and any future earnings for use in the operation of our business and do not anticipate paying any cash dividends on our common stock in the foreseeable future. Any future determination to declare dividends will be made at the discretion of our board of directors and will depend on our financial condition, operating results, capital requirements, general business conditions and other factors that our board of directors may deem relevant. In addition, under the terms of our current loan and security agreement, we are prohibited from paying cash dividends or making any distribution on account of our capital stock without the consent of Silicon Valley Bank and Oxford Finance LLC. See the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources" for a description of the restrictions on our ability to pay dividends.

CAPITALIZATION

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

- an actual basis;
- a pro forma basis, giving effect to (i) the automatic conversion of all outstanding shares of our redeemable convertible preferred stock as of December 31, 2017 into an aggregate of shares of common stock immediately prior to the completion of this offering, (ii) the issuance of shares of common stock that we expect to issue, based upon an assumed initial public offering price of $ per share, which is the midpoint of the estimated price range set forth on the cover of this prospectus, upon the net exercise of warrants outstanding as of December 31, 2017 for the purchase of 1,791,784 shares of redeemable convertible preferred stock and 40,000 shares of common stock that would otherwise expire upon completion of this offering and the related reclassification of redeemable convertible preferred stock warrant liability to total stockholders' equity (deficit), (iii) the conversion of the redeemable convertible preferred stock warrants into common stock warrants and the related reclassification of the redeemable convertible preferred stock warrant liability to total stockholders' equity (deficit), (iv) the repayment of principal and interest on a $0.2 million outstanding note issued to an executive officer and (v) the effectiveness of our restated certificate of incorporation in connection with the completion of this offering; and
- a pro forma as adjusted basis, giving effect to (i) the pro forma adjustments described above and (ii) the sale of shares of common stock in this offering, based upon an assumed initial public offering price of $ per share, which is the midpoint of the estimated price range set forth on the cover of this prospectus, after deducting the estimated underwriting discounts and commissions and estimated offering expenses.

The pro forma as adjusted information set forth in the table below is illustrative only and will be adjusted based on the actual initial public offering price and other terms of this offering determined at pricing.

You should read this table together with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our audited financial statements and related notes, each included elsewhere in this prospectus.

	As of December 31, 2017		
	Actual	Pro Forma	Pro Forma As Adjusted(1)
	(Unaudited) (in thousands, except share and per share data)		
Cash and cash equivalents	$ 22,020	$	$
Debt	$ 14,634	$	$
Redeemable convertible preferred stock warrant liability	1,708		
Redeemable convertible preferred stock, $0.001 par value—177,082,393 shares authorized; 173,750,421 shares issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma or pro forma as adjusted	102,505		
Stockholders' equity (deficit):			
Preferred stock, $0.001 par value: no shares authorized, issued and outstanding, actual; shares authorized, no shares issued and outstanding pro forma and pro forma as adjusted	–		
Common stock, $0.001 par value—271,000,000 shares authorized; 16,897,022 shares issued and outstanding, actual; shares authorized; shares issued and outstanding, pro forma; shares issued and outstanding, pro forma as adjusted	17		
Note receivable from stockholder	(208)		
Additional paid-in-capital	6,201		
Accumulated deficit	(115,011)		
Total stockholders' equity (deficit)	(109,001)		
Total capitalization	$ 9,846	$	$

(1) Each $1.00 increase (decrease) in the assumed initial public offering price of $ per share, which is the midpoint of the estimated price range set forth on the cover of this prospectus, would increase (decrease) each of our pro forma as adjusted cash and cash equivalents, additional paid-in-capital, total stockholders' equity (deficit) and total capitalization by approximately $ million, assuming that the number of shares offered remains the same and after deducting the estimated underwriting discounts and commissions. Similarly, each increase (decrease) of 1,000,000 shares in the number of shares of common stock offered would increase (decrease) each of our pro forma as adjusted cash and cash equivalents, additional paid-in-capital, total stockholders' equity (deficit) and total capitalization by approximately $ million, assuming the assumed initial public offering price remains the same and after deducting the estimated underwriting discounts and commissions.

The table above excludes the following shares:

- 30,329,406 shares of common stock issuable upon the exercise of options outstanding as of December 31, 2017, with a weighted-average exercise price of $0.28 per share;
- 70,000 shares of common stock issuable upon the exercise of options granted after December 31, 2017, with an exercise price of $0.41 per share;
- shares of common stock issuable upon the exercise of warrants to purchase 1,370,158 shares of redeemable convertible preferred stock, with a weighted-average exercise price of $0.5693 per share, that will automatically convert to common stock warrants upon the completion of this offering;

- shares of common stock issuable upon the exercise and conversion of a warrant to purchase 170,030 shares of redeemable convertible preferred stock, with an exercise price of $0.8822 per share, that will expire on June 17, 2018; and
- shares of common stock reserved for future issuance under our stock-based compensation plans, consisting of (i) 3,308,488 shares of common stock reserved for future issuance under our 2004 Stock Plan as of December 31, 2017, (ii) shares of common stock reserved for future issuance under our 2018 Equity Incentive Plan, which will become effective on the date immediately prior to the date of this prospectus and (iii) shares of common stock reserved for future issuance under our 2018 Employee Stock Purchase Plan, which will become effective on the date of this prospectus. Upon completion of this offering, any remaining shares available for issuance under our 2004 Stock Plan will be added to the shares reserved under our 2018 Equity Incentive Plan and we will cease granting awards under our 2004 Stock Plan. Our 2018 Equity Incentive Plan and 2018 Employee Stock Purchase Plan also provide for automatic annual increases in the number of shares reserved under the plans each year, as more fully described in "Executive Compensation—Equity Compensation Benefit Plans and Other Benefit Plans."

DILUTION

If you invest in our common stock in this offering, your ownership interest will be immediately diluted to the extent of the difference between the amount per share paid by purchasers of shares of common stock in this offering and the pro forma as adjusted net tangible book value per share of common stock immediately after this offering.

Net tangible book value (deficit) per share is determined by dividing our total tangible assets (which excludes deferred offering costs) less our total liabilities and redeemable convertible preferred stock by the number of shares of common stock outstanding. Our historical net tangible book value (deficit) as of December 31, 2017 was $(109.5) million, or $(6.48) per share, based on 16,897,022 shares of common stock outstanding as of December 31, 2017. Our pro forma net tangible book value as of December 31, 2017 was approximately $ million, or $ per share of common stock. Our pro forma net tangible book value per share represents the amount of our total tangible assets (which excludes deferred offering costs) reduced by the amount of our total liabilities and divided by the total number of shares of our common stock outstanding as of December 31, 2017, after giving effect to (i) the automatic conversion of all outstanding shares of our redeemable convertible preferred stock as of December 31, 2017 into an aggregate of shares of common stock immediately prior to the completion of this offering, and (ii) the issuance of shares of common stock that we expect to issue, based upon an assumed initial public offering price of $ per share, which is the midpoint of the estimated price range set forth on the cover of this prospectus, upon the net exercise of warrants outstanding as of December 31, 2017 for the purchase of 1,791,784 shares of redeemable convertible preferred stock and 40,000 shares of common stock that would otherwise expire upon completion of this offering.

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

Assumed initial public offering price, per share		$
Pro forma net tangible book value per share as of December 31, 2017	$	
Increase in pro forma net tangible book value per share attributable to new investors in this offering		
Pro forma as adjusted net tangible book value per share after this offering		
Dilution per share to new investors in this offering		$

Each $1.00 increase (decrease) in the assumed initial public offering price of $ per share, which is the midpoint of the estimated price range set forth on the cover of this prospectus, would increase (decrease) our pro forma as adjusted net tangible book value by $ million, or $ per share and the dilution in pro forma as adjusted net tangible book value per share to new investors in this offering by $ per share, assuming the number of shares offered, as set forth on the cover of this prospectus, remains the same, and after deducting the estimated underwriting

discounts and commissions. Similarly, each increase of 1,000,000 shares in the number of shares of common stock offered in this offering would increase our pro forma as adjusted net tangible book value by approximately $ million, or approximately $ per share, and would increase dilution per share to new investors in this offering by approximately $ per share and each decrease of 1,000,000 shares in the number of shares of common stock offered in this offering would decrease our pro forma as adjusted net tangible book value by approximately $ million, or approximately $ per share, and would decrease dilution per share to new investors in this offering by approximately $ per share, assuming the assumed initial public offering price per share remains the same and after deducting the estimated underwriting discounts and commissions. 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 exercise their option in full to purchase additional shares, the pro forma as adjusted net tangible book value per share after this offering would be $ per share, the increase in pro forma as adjusted net tangible book value per share to existing stockholders would be $ per share and the dilution to new investors in this offering would be $ per share.

The following table shows, as of December 31, 2017, on a pro forma as adjusted basis described above, the differences between the existing stockholders and the purchasers of shares in this offering with respect to the number of shares purchased from us, the total consideration paid, which includes net proceeds received from the issuance of common and redeemable convertible preferred stock, cash received from the exercise of stock options, and the value of any stock issued for services and the average price paid per share (in thousands, except per share amounts and percentages):

	Shares Purchased		Total Consideration		Average Price Per Share
	Number	Percent	Amount	Percent	
Existing stockholders		%	$	%	$
New public investors					$
Total		100.0%	$	100.0%	

Each $1.00 increase (decrease) in the assumed initial public offering price of $ per share, which is the midpoint of the estimated price range set forth on the cover of this prospectus, would increase (decrease) total consideration paid by new investors and total consideration paid by all stockholders by approximately $ million, assuming that the number of shares offered, as set forth on the cover of this prospectus, remains the same, and after deducting the estimated underwriting discounts and commissions. Similarly, each increase (decrease) of 1,000,000 shares in the number of shares of common stock offered in this offering would increase (decrease) total consideration paid by new investors and total consideration paid by all stockholders by approximately $ million, assuming the assumed initial public offering price remains the same and after deducting the estimated underwriting discounts and commissions.

In addition, to the extent that any outstanding options or warrants are exercised, investors in this offering will experience further dilution.

Except as otherwise indicated, the above discussion and tables assume no exercise of the underwriters' option to purchase additional shares. If the underwriters exercise their option to purchase additional shares in full, our existing stockholders would own % and our new investors would own % of the total number of shares of our common stock outstanding upon the completion of this offering.

The number of shares of common stock outstanding as of December 31, 2017 excludes:

- 30,329,406 shares of common stock issuable upon the exercise of options outstanding as of December 31, 2017, with a weighted-average exercise price of $0.28 per share;
- 70,000 shares of common stock issuable upon the exercise of options granted after December 31, 2017, with an exercise price of $0.41 per share;
- shares of common stock issuable upon the exercise of warrants to purchase 1,370,158 shares of redeemable convertible preferred stock, with a weighted-average exercise price of $0.5693 per share, that will automatically convert to common stock warrants upon the completion of this offering;
- shares of common stock issuable upon the exercise and conversion of a warrant to purchase 170,030 shares of redeemable convertible preferred stock, with an exercise price of $0.8822 per share, that will expire on June 17, 2018; and
- shares of common stock reserved for future issuance under our stock-based compensation plans, consisting of (i) 3,308,488 shares of common stock reserved for future issuance under our 2004 Stock Plan as of December 31, 2017, (ii) shares of common stock reserved for future issuance under our 2018 Equity Incentive Plan, which will become effective on the date immediately prior to the date of this prospectus and (iii) shares of common stock reserved for future issuance under our 2018 Employee Stock Purchase Plan, which will become effective on the date of this prospectus. Upon completion of this offering, any remaining shares available for issuance under our 2004 Stock Plan will be added to the shares reserved under our 2018 Equity Incentive Plan and we will cease granting awards under our 2004 Stock Plan. Our 2018 Equity Incentive Plan and 2018 Employee Stock Purchase Plan also provide for automatic annual increases in the number of shares reserved under the plans each year, as more fully described in “Executive Compensation—Equity Compensation Benefit Plans and Other Benefit Plans.”

SELECTED FINANCIAL DATA

The following tables set forth our selected statements of operations and balance sheet data. The selected statements of operations data presented below for the years ended December 31, 2016 and 2017 and the selected balance sheet data as of December 31, 2016 and 2017 are derived from our audited financial statements included elsewhere in this prospectus, which financial statements have been audited by Ernst & Young LLP, our independent registered public accounting firm. The Ernst & Young LLP audit report on the financial statements for the year ended December 31, 2017 includes an explanatory paragraph that describes an uncertainty about our ability to continue as a going concern. The following selected financial data below should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our financial statements and related notes included elsewhere in this prospectus. Our historical results are not necessarily indicative of the results that may be expected in any future period. The selected financial data in this section are not intended to replace the financial statements and are qualified in their entirety by the financial statements and related notes included elsewhere in this prospectus.

	Year Ended December 31,	
	2016	2017
	(in thousands, except share and per share data)	
Statements of Operations Data:		
Collaboration revenue	$ 59,731	$ 51,741
Operating expenses:		
Research and development	43,550	54,639
General and administrative	14,817	16,374
Total operating expenses	58,367	71,013
Income (loss) from operations	1,364	(19,272)
Interest income	251	273
Interest expense	–	(612)
Other income (expense), net	87	(77)
Net income (loss)	$ 1,702	$ (19,688)
Net income (loss) per share attributable to common stockholders, basic and diluted(1)	$ –	$ (1.21)
Weighted-average shares used in computing net income (loss) per share attributable to common stockholders, basic and diluted(1)	14,804,949	16,265,874
Pro forma net loss per share, basic and diluted (unaudited)(1)		$
Weighted-average shares used in computing pro forma net loss per share, basic and diluted (unaudited)(1)		

(1) See Notes 2 and 13 to our financial statements included elsewhere in this prospectus for an explanation of the calculations of our basic and diluted net income (loss) per share attributable to common stockholders, 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,	
	2016	2017
	(in thousands)	
Balance Sheet Data:		
Cash and cash equivalents	$ 11,593	$ 22,020
Marketable securities	35,928	–
Working deficit	(493)	(6,327)
Total assets	69,277	40,769
Debt	–	14,634
Redeemable convertible preferred stock warrant liability	1,193	1,708
Redeemable convertible preferred stock	102,505	102,505
Accumulated deficit	(95,323)	(115,011)
Total stockholders' deficit	(90,901)	(109,001)

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 of this prospectus entitled "Selected Financial Data" and our 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 statements of 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 discussed in the section of this prospectus entitled "Risk Factors."

Overview

We are a clinical stage drug discovery, development and manufacturing company focused on leveraging our proprietary integrated cell-free protein synthesis platform, XpressCF, to create a broad variety of optimally designed, next-generation protein therapeutics for oncology. We aim to design therapeutics using the most potent modalities, including cytokine-based immuno-oncology therapeutics, antibody-drug conjugates, or ADCs, and bispecific antibodies that are directed primarily against clinically validated targets where the current standard of care is suboptimal. Our platform allows us to accelerate the discovery and development of molecules by enabling the rapid and systematic evaluation of protein structure-activity relationships to create optimized homogeneous product candidates. Our mission is to transform the lives of cancer patients by using our XpressCF Platform to create medicines with improved therapeutic profiles for areas of unmet need.

Once identified, production of protein drug candidates can be rapidly and predictably scaled in our current Good Manufacturing Practices compliant manufacturing facility. We have the ability to manufacture our cell-free extract that supports our production of proteins on a large scale using a semi-continuous fermentation process. Our two most advanced product candidates are wholly owned: STRO-001, an ADC directed against CD74, for patients with multiple myeloma and non-Hodgkin lymphoma; and STRO-002, an ADC directed against folate receptor-alpha, or FolRa, for patients with ovarian and endometrial cancers. STRO-001 is currently enrolling patients in a Phase 1 trial, with initial safety data expected in 2019. We plan to submit an investigational new drug, or IND, application for STRO-002 to the U.S. Food and Drug Administration in the fourth quarter of 2018. We have also entered into multi-target, product-focused collaborations with leaders in the field of oncology, including a B cell maturation antigen, or BCMA, and an immuno-oncology directed alliance with Celgene Corporation, or Celgene, and an oncology-focused collaboration with Merck KGaA, Darmstadt, Germany (operating in the United States and Canada under the name "EMD Serono").

Since the commencement of our operations, we have devoted substantially all of our resources to performing research and development and manufacturing activities in support of our own product development efforts and those of our collaborators, raising capital to support and expand such activities and providing general and administrative support for these operations. We have funded our operations to date primarily from upfront, milestone and other payments under our collaboration agreements with Celgene and Merck KGaA, Darmstadt, Germany, the issuance and sale of redeemable convertible preferred stock and debt proceeds.

We have not generated any revenue from commercial product sales and have no products for commercial sale. We had a net loss of $19.7 million for the year ended December 31, 2017. Although we had net income for the year ended December 31, 2016 of $1.7 million, we cannot assure you that we will ever be profitable again or that we will generate positive cash flow from operating activities. As

of December 31, 2017, we had an accumulated deficit of $115.0 million. We do not expect to generate any revenue from commercial product sales unless and until we successfully complete development and obtain regulatory approval for one or more of our product candidates, which we expect will take a number of years. If we obtain regulatory approval for any of our product candidates, we expect to incur significant commercialization expenses related to product sales, marketing, manufacturing and distribution. We expect our operating expenses to significantly increase as we continue to develop, and seek regulatory approvals for, our product candidates, engage in other research and development activities, expand our pipeline of product candidates, continue to develop our manufacturing facility and capabilities, maintain and expand our intellectual property portfolio, seek regulatory and marketing approval for any product candidates that we may develop, acquire or in-license other assets or technologies, ultimately establish a sales, marketing and distribution infrastructure to commercialize any products for which we may obtain marketing approval and operate as a public company. Our net losses may fluctuate significantly from quarter-to-quarter and year-to-year, depending on the timing of our clinical trials, our expenditures on other research and development activities and the timing of achievement and receipt of upfront, milestones and other collaboration agreement payments.

As of December 31, 2017, we had $22.0 million in cash and cash equivalents. We completed an equity financing and obtained $31.6 million in gross proceeds from the sale of our Series E redeemable convertible preferred stock in May 2018. We expect that the net proceeds from this offering, together with our existing cash and cash equivalents and the proceeds from our recent Series E financing, will be sufficient to fund our operations through at least the next 12 months. We will need substantial additional funding in addition to the net proceeds of this offering to support our continuing operations and pursue our long-term business plan. We may seek additional funding through the issuance of our common stock, other equity or debt financings or collaborations or partnerships with other companies. The amount and timing of our future funding requirements will depend on many factors, including the pace and results of our clinical development efforts for our product candidates and other research activities, payments received under any future or existing license and collaboration agreements, and development and manufacturing activities. We may not be able to raise additional capital on terms acceptable to us, or at all. Any failure to raise capital as and when needed would compromise our ability to execute on our business plan and may cause us to significantly delay, scale back or discontinue the development of some of our programs or curtail any efforts to expand our product pipeline.

Collaboration and License Agreements

Celgene Agreements

In September 2014, we entered into a Collaboration and License Agreement with Celgene, or the 2014 Celgene Agreement, to discover and develop bispecific antibodies and/or ADCs focused primarily on the field of immuno-oncology using our XpressCF Platform. Under the 2014 Celgene Agreement, we received upfront payments totaling $95.0 million in September 2014, which included an $11.9 million equity investment, and additional payments totaling $60.0 million.

In August 2017, we entered into an Amended and Restated Collaboration and License Agreement with Celgene, or the 2017 Celgene Agreement, to refocus our 2014 Celgene Agreement on four programs that are advancing through preclinical development, including an ADC program targeting BCMA. Upon signing the 2017 Celgene Agreement, we received an option fee payment of $12.5 million in August 2017 and are eligible to receive a second option fee payment of $12.5 million following the first IND clearance, if any, for one of the four programs, if Celgene desires to maintain its option to acquire the U.S. rights to develop and commercialize a second collaboration program to reach IND status. If Celgene exercises its option to acquire from us the U.S. rights to a second collaboration program, it will make an option exercise fee payment to us, the amount of which depends on which program reaches IND status.

Under the terms of the 2017 Celgene Agreement, we are eligible to receive a potential future payment for manufacturing activities of $10.0 million. We are also entitled to receive financial support for research and development services to be assigned to us by Celgene, based on an agreed-upon level of full-time equivalent personnel effort and related reimbursement rate. In addition, for licensed products for which Celgene holds worldwide rights, we are eligible to receive aggregate milestone and option fee payments of up to $295.0 million for certain licensed products and up to $393.7 million for certain other licensed products under the collaboration, if approved in multiple indications, and, depending on the licensed product, tiered royalties ranging from single digit to low teen percentages on worldwide sales of any commercial products that may result from the 2017 Celgene Agreement. For licensed products for which Celgene holds ex-U.S. rights, we will also be eligible to receive pre-commercial contingent payments and tiered royalties ranging from mid to high single digit percentages.

We recognized revenue from the Celgene agreements of $54.0 million and $44.6 million during the years ended December 31, 2016 and 2017, respectively. As of December 31, 2016 and 2017, there was $39.5 million and $18.0 million, respectively, of deferred revenue related to payments received by us under the Celgene agreements.

Merck KGaA, Darmstadt, Germany Agreement

We entered into a Collaboration Agreement with Merck KGaA, Darmstadt, Germany in May 2014, or the Collaboration Agreement, which was replaced by a License Agreement with Merck KGaA, Darmstadt, Germany in September 2014, or the MDA Agreement, to develop ADCs for multiple cancer targets.

Upon signing the Collaboration Agreement, we received $10.0 million in an upfront payment. In addition, upon signing the MDA Agreement, we received an additional $10.0 million in an upfront payment and receive financial support for our research and development services based on an agreed-upon level of full-time equivalent personnel effort and related reimbursement rate. As of March 31, 2018, we had received $6.3 million in funding support for research and development services. We anticipate entering into a manufacturing supply agreement with Merck KGaA, Darmstadt, Germany to provide them with product candidate materials for IND-enabling and clinical studies.

We are eligible to receive up to $52.5 million for each product developed under the MDA Agreement, primarily from pre-commercial contingent payments. In addition, we are eligible to receive tiered royalties ranging from low to mid single digit percentages, along with certain additional one-time royalties, on worldwide sales of any commercial products that may result from the MDA Agreement.

We recognized revenue from the MDA Agreement of $5.7 million and $7.1 million during the years ended December 31, 2016 and 2017, respectively. As of December 31, 2016 and 2017, there was $10.0 million and $5.9 million, respectively, of deferred revenue related to payments received by us under the MDA Agreement.

Financial Operations Overview

Revenue

We have no products approved for commercial sale and have not generated any revenue from commercial product sales. Our revenue to date has been generated principally from our collaboration and license agreements with Celgene and Merck KGaA, Darmstadt, Germany. We recognize revenue from nonrefundable upfront license payments over the term of our estimated period of performance under the agreements. In addition to receiving upfront payments, we may also be entitled to milestone and other contingent payments upon achieving predefined objectives. Revenue from milestones, if they

are nonrefundable and deemed substantive, are recognized upon successful accomplishment of the performance obligations. To the extent that non-substantive milestones are achieved, and we have remaining performance obligations, such payments are deferred and recognized as revenue over the estimated remaining period of performance. Under our collaboration and license agreements with Celgene and Merck KGaA, Darmstadt, Germany, we are entitled to receive payments for certain research and development activities, including product supply and related materials, which we recognize as collaboration revenue.

We expect that any revenue we generate principally from our current collaboration and license agreements with Celgene and Merck KGaA, Darmstadt, Germany, and from any future collaboration partners, will fluctuate from year to year as a result of the timing and amount of upfront, milestones and other collaboration agreement payments. There can be no assurance that we will receive additional collaboration revenue in the future.

Operating Expenses

Research and Development

Research and development expenses represent costs incurred in performing research, development and manufacturing activities in support of our own product development efforts and those of our collaborators, and include salaries, employee benefits, stock-based compensation, laboratory supplies, outsourced research and development expenses, professional services and allocated facilities-related costs. We expense both internal and external research and development costs as they are incurred. Non-refundable advance payments for services that will be used or rendered for future research and development activities are recorded as prepaid expenses and recognized as expenses as the related services are performed.

We expect our research and development expenses to increase substantially in absolute dollars in the future as we advance our product candidates into and through preclinical studies and clinical trials, pursue regulatory approval of our product candidates, expand our pipeline of product candidates and continue to develop our manufacturing facility and capabilities. The process of conducting the necessary preclinical and clinical research to obtain regulatory approval is costly and time consuming. The actual probability of success for our product candidates may be affected by a variety of factors including: the safety and efficacy of our product candidates, early clinical data, investment in our clinical programs, the ability of collaborators to successfully develop our licensed product candidates, competition, manufacturing capability and commercial viability. We may never succeed in achieving regulatory approval for any of our product candidates. As a result of the uncertainties discussed above, we are unable to determine the duration and completion costs of our research and development projects or when and to what extent we will generate revenue from the commercialization and sale of our product candidates.

The following table summarizes our research and development expenses incurred during the periods indicated. The internal costs include personnel, facility costs and research and scientific related activities associated with our pipeline. The external program costs reflect external costs attributable to our clinical development candidates and preclinical candidates selected for further development. Such expenses include third-party costs for preclinical and clinical studies and research services, and other consulting costs.

	Year Ended December 31,	
	2016	2017
	(in thousands)	
Internal Costs:		
Research and drug discovery	$17,040	$15,636
Process and product development	8,224	8,195
Manufacturing	14,496	19,769
Clinical development	–	843
Total internal costs	39,760	44,443
External Program Costs:		
Research and drug discovery	1,650	1,090
Toxicology and translational science	138	3,767
Process and product development	158	208
Manufacturing	1,844	4,198
Clinical development	–	933
Total external program costs	3,790	10,196
Total research and development expenses	$43,550	$54,639

General and Administrative

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

Interest Income

Interest income consists primarily of interest received on our invested funds.

Interest Expense

Interest expense includes interest incurred on our debt and amortization of debt issuance costs.

Other Income (Expense), Net

Other income (expense), net primarily includes gains and losses from the remeasurement of our liabilities related to our redeemable convertible preferred stock warrants. We will continue to adjust the liability for changes in estimated fair value until the earlier of the exercise of the warrants, expiration of the warrants, or conversion of the redeemable convertible preferred stock warrants upon the completion of a liquidation event, including the completion of an initial public offering, into common

stock warrants. At such time, the redeemable convertible preferred stock warrant liability will be reclassified to additional paid-in-capital and we will no longer record any related periodic fair value adjustments.

Comparison of the Years Ended December 31, 2016 and 2017

	Year Ended December 31,			
	2016	2017	$ Change	% Change
	(in thousands except percentages)			
Collaboration revenue	$59,731	$ 51,741	$ (7,990)	(13)%
Operating expenses:				
Research and development	43,550	54,639	11,089	25
General and administrative	14,817	16,374	1,557	11
Total operating expenses	58,367	71,013	12,646	22
Income (loss) from operations	1,364	(19,272)	(20,636)	*
Interest income	251	273	22	9
Interest expense	–	(612)	(612)	*
Other income (expense), net	87	(77)	(164)	*
Net income (loss)	$ 1,702	$(19,688)	$(21,390)	*

* Percentage not meaningful

Collaboration Revenue

We have recognized revenue from our collaboration agreements as follows during the periods indicated:

	Year Ended December 31,	
	2016	2017
	(in thousands)	
Celgene:		
Amortization of up-front payment	$27,730	$16,694
Research and development services	–	660
Milestones and contingent payments	26,271	27,252
Total	54,001	44,606
Merck KGaA, Darmstadt, Germany:		
Amortization of up-front payment	4,120	4,120
Research and development services	1,610	3,015
Total	5,730	7,135
Total collaboration revenue	$59,731	$51,741

Revenue decreased by $8.0 million, or 13%, during the year ended December 31, 2017 compared to the year ended December 31, 2016. The decrease was due to the decline in collaboration revenue of $11.0 million recognized from the up-front nonrefundable payment of $83.1 million received in 2014 under the 2014 Celgene Agreement, as the remaining deferred revenue balance, as of the effective date of the 2017 Celgene Agreement, along with the payments under the 2017 Celgene Agreement, will be recognized ratably starting in August 2017 and ending in September 2020. The decrease was partially offset by a $1.0 million increase in revenue recognized from milestones and contingent payments from Celgene and an increase of an aggregate of $2.1 million in research and development services for Celgene and Merck KGaA, Darmstadt, Germany.

Research and Development Expense

Research and development expense increased by $11.1 million, or 25%, during the year ended December 31, 2017 compared to the year ended December 31, 2016. The increase was due to an increase of $3.4 million in personnel-related expenses due to headcount growth, an increase of $2.4 million in consulting and other external services, an increase of $1.7 million in facilities-related costs, as a result of increased research and development activities in support of our own product development efforts and those of our collaborators, and a net increase of $0.9 million in preclinical and pharmacology research spending as well as manufacturing supplies and production materials. The increase in research and development expense also reflects an impairment charge of $2.7 million pertaining to certain custom-built manufacturing equipment that failed to meet our acceptance criteria.

General and Administrative Expense

General and administrative expense increased by $1.6 million, or 11%, during the year ended December 31, 2017 compared to the year ended December 31, 2016. The increase was due to an increase of $0.5 million in equipment-related expenses and an increase of $0.7 million in personnel-related expenses due to higher headcount. In addition, we incurred an additional $0.4 million related to external investor relations services and professional services fees.

Interest Expense

Interest expense increased by $0.6 million during the year ended December 31, 2017 compared to the year ended December 31, 2016. The increase was due to the interest incurred under a loan and security agreement that we entered into in August 2017. We had no outstanding debt in 2016.

Other Income (Expense), Net

Other income (expense), net increased by $0.2 million during the year ended December 31, 2017 compared to the year ended December 31, 2016. The increase was primarily due to the change in estimated fair value of our Series B and Series C redeemable convertible preferred stock warrants.

Liquidity and Capital Resources

Sources of Liquidity

Since inception, we have funded our operations primarily by payments received from our collaborators, net proceeds from the sale of our redeemable convertible preferred stock and debt proceeds. Our expenditures are primarily related to research, development and manufacturing activities. At December 31, 2017, we had available cash and cash equivalents of $22.0 million. As of December 31, 2017, our outstanding debt was $14.6 million, which is net of $0.4 million unamortized debt discount, and we had an accumulated deficit of $115.0 million.

In May 2018, we completed a Series E redeemable convertible preferred stock financing that resulted in gross proceeds of $31.6 million.

In August 2017, we entered into a loan and security agreement with Oxford Finance LLC, or Oxford, and Silicon Valley Bank, or SVB, under which we borrowed $15.0 million. The loan is due in 30 monthly installments from March 2019 through its repayment in August 2021, with interest-only monthly payments until March 2019. If certain qualified funding events occur, the loan will be due in 24 monthly installments from September 2019 through repayment on August 2021, with interest-only payments until September 2019.

The interest charges on the loan are based on a floating rate that equals the greater of 7.39% or the sum of the 30-day U.S. Dollar London Interbank Offered Rate, or LIBOR, plus 6.40%. In addition, we will make a final payment equal to 3.83% of the original principal amount of the loan, or $574,500, which will be accrued over the term of the loan using the effective-interest method.

The loan is secured by all our assets, excluding intellectual property and certain other assets. The loan contains customary affirmative and restrictive covenants, including with respect to our ability to enter into fundamental transactions, incur additional indebtedness, grant liens, pay any dividend or make any distributions to our holders, make investments, merge or consolidate with any other person, or engage in transactions with our affiliates, but does not include any financial covenants. The loan agreement provides that an event of default will occur if, among other triggers, there occurs any circumstances that could reasonably be expected to result in a material adverse effect on our business, operations or condition, or on our ability to perform our obligations under the loan. We have disclosed that there is currently substantial doubt about our ability to continue as going concern given our continuing operating losses and our current available capital resources, which could be deemed to be an event of default if such condition was considered to have a material adverse effect on our business, operations or condition. As a result, we have classified the entire debt balance as a current liability given that a determination of such an event of default is outside of our control. However, we believe that our existing cash and cash equivalents, proceeds from our Series E redeemable convertible preferred stock financing and proceeds from this offering will be sufficient to fund our operating requirements for at least the next 12 months, and therefore, we do not believe that the current doubt about our ability to continue as a going concern has a material adverse effect on our business.

The loan agreement also includes customary representations and warranties, other events of default and termination provisions. We were in compliance with all covenants under the loan as of December 31, 2017.

Funding Requirements

Based on our planned operations, we do not expect that our current cash and cash equivalents will be sufficient to fund our operations for at least 12 months after the date the financial statements are issued without raising additional capital through equity or debt financing, or potential additional collaboration proceeds. 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. Our ability to continue as a going concern is dependent upon our ability to successfully secure sources of financing and ultimately achieve profitable operations. We expect our existing capital resources together with the proceeds from this offering will fund our operating expenses for at least the next 12 months.

We will require additional financing to fund working capital and pay our obligations. We may seek to raise any necessary additional capital through a combination of public or private equity offerings, debt financings, collaborations, strategic alliances, licensing arrangements and other marketing and distribution arrangements. There can be no assurance that we will be successful in acquiring additional funding at levels sufficient to fund our operations or on terms favorable to us. If we are unable to obtain adequate financing when needed, we may have to delay, reduce the scope of or suspend one or more of our pre-clinical and clinical studies, research and development programs or commercialization efforts. Because of the numerous risks and uncertainties associated with the development and commercialization of our product candidates and the extent to which we may enter into additional collaborations with third parties to participate in their development and commercialization, we are unable to estimate the amounts of increased capital outlays and operating expenditures associated with our current and anticipated clinical studies. Our future funding requirements will depend on many factors, including the following:

- the scope, rate of progress, results and cost of our clinical trials, preclinical studies and other related activities;
- the cost of manufacturing clinical supplies, and establishing commercial supplies, of our product candidates and any products that we may develop;

- the receipt of any future payments from current or potential collaborators;
- the number and characteristics of product candidates that we pursue;
- the cost, timing and outcomes of regulatory approvals;
- the cost and timing of establishing sales, marketing and distribution capabilities;
- the terms and timing of any other collaborative, licensing and other arrangements that we may establish;
- the timing, receipt and amount of sales, profit sharing or royalties, if any, from our potential products;
- the cost of preparing, filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights; and
- the extent to which we acquire or invest in businesses, products or technologies, although we currently have no commitments or agreements relating to any of these types of transactions.

To the extent that we raise additional capital through additional collaborations, strategic alliances or licensing arrangements with third parties, we may have to relinquish valuable rights to our product candidates, future revenue streams, research programs or product candidates or to grant licenses on terms that may not be favorable to us. If we do raise additional capital through public or private equity or convertible debt offerings, the ownership interest of our existing stockholders will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect our stockholders' rights. If we raise additional capital through debt financing, we may be subject to covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends.

Cash Flows

The following table summarizes our cash flows during the periods indicated:

	Year Ended December 31,	
	2016	2017
	(in thousands)	
Cash used in operating activities	$(13,160)	$ (37,074)
Cash provided by investing activities	9,591	32,602
Cash provided by financing activities	184	14,639
Net (decrease) increase in cash and cash equivalents and restricted cash	$ (3,385)	$ 10,167

Cash Flows from Operating Activities

Cash used in operating activities for the year ended December 31, 2017 was $37.1 million. Our net loss of $19.7 million was decreased by non-cash charges of $5.0 million for depreciation and amortization, $2.7 million for an impairment charge on certain equipment, $1.4 million for stock-based compensation and $0.4 million in other non-cash charges. Cash used in operating activities reflected a change in net operating assets of $26.9 million, primarily due to a decrease in our deferred revenue balance of $25.6 million from the recognition of revenue pertaining to payments received from our collaborators Celgene and Merck KGaA, Darmstadt, Germany during prior periods, and an increase in accounts receivable of $1.0 million due to higher research and development services revenues from our collaborators Celgene and Merck KGaA, Darmstadt, Germany.

Cash used in operating activities for the year ended December 31, 2016 was $13.2 million. Our net income of $1.7 million was increased by non-cash charges of $5.7 million for depreciation and amortization, $1.0 million for stock-based compensation and $0.2 million for amortization of premium on marketable securities. Cash used in operating activities reflected a decrease in net operating assets

of $21.7 million, primarily due to a decrease in our deferred revenue balance of $23.1 million from the recognition of revenue pertaining to payments received from our collaborators Celgene and Merck KGaA, Darmstadt, Germany during prior periods, an increase in accrued bonus compensation of $1.2 million driven primarily by higher headcount and an increase of $0.9 million in accounts payable due to a higher level of research and development activities.

Cash Flows from Investing Activities

Cash provided by investing activities of $32.6 million for the year ended December 31, 2017 was related to proceeds from maturities of marketable securities of $34.9 million and sales of marketable securities of $15.2 million, partially offset by purchases of marketable securities of $14.2 million and purchases of property and equipment of $3.3 million, principally for laboratory and manufacturing equipment and leasehold improvements.

Cash provided by investing activities of $9.6 million for the year ended December 31, 2016 was related to proceeds from maturities of marketable securities of $57.8 million and sales of marketable securities of $8.5 million, partially offset by purchases of marketable securities of $52.3 million and purchases of property and equipment of $4.4 million, principally for laboratory and manufacturing equipment and leasehold improvements.

Cash Flows from Financing Activities

Cash provided by financing activities of $14.6 million for the year ended December 31, 2017 was primarily related to the proceeds from our debt with Oxford and SVB, net of issuance costs, of $14.8 million and partially offset by the payment of $0.3 million in financing costs related to this offering.

Cash provided by financing activities of $0.2 million for the year ended December 31, 2016 was related to proceeds from the issuances of common stock from the exercise of stock options.

Contractual Obligations and Other Commitments

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

	Payments Due by Period				
	Less than 1 year	1 to 3 years	3 to 5 years	More than 5 years	Total
	(in thousands)				
Contractual obligations:					
Debt, principal(1)	$ –	$ 11,000	$ 4,000	$ –	$ 15,000
Debt, interest(2)	1,173	1,524	666	–	3,363
Operating lease obligations	3,540	7,426	3,195	–	14,161
Total contractual obligations	$ 4,713	$ 19,950	$ 7,861	$ –	$ 32,524

(1) Represents principal payments only. We will pay interest on outstanding indebtedness based on the rates and terms summarized in Note 7 to our financial statements included elsewhere in this prospectus.

(2) Represents interest expense expected to be incurred on our debt based on obligations outstanding and rates effective at December 31, 2017, including a final one-time payment of $0.6 million.

In addition, we enter into agreements in the normal course of business with contract research organizations for clinical trials and with vendors for preclinical studies and other services and products for operating purposes, which are generally cancelable upon written notice. These payments are not included in this table of contractual obligations.

Off-Balance Sheet Arrangements

We have not entered into any off-balance sheet arrangements, as defined under SEC rules. While we have an investment classified as variable interest entity, its purpose is not to provide off-balance sheet financing.

Critical Accounting Polices and Estimates

Our management's discussion and analysis of our financial condition and results of operations is based on our financial statements, which have been prepared in accordance with United States generally accepted accounting principles. The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements, as well as the reported revenue generated and expenses incurred during the reporting periods. Our estimates are based on our historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

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

Revenue Recognition

We generate revenue from collaboration and license agreements for the development and commercialization of our product candidates. Under our collaboration agreements, we may receive non-refundable upfront payments, funding for research and development services, milestones, other contingent payments and royalties. In assessing the appropriate revenue recognition related to a collaboration agreement, we first determine whether an arrangement includes multiple elements, such as the delivery of intellectual property rights and research and development services.

Typically, access to the intellectual property rights under our collaboration agreements do not have stand-alone value from the other elements within the arrangement. As such, upfront payments are recorded as deferred revenue in the balance sheet and are recognized as collaboration revenue over the estimated period of performance that is consistent with the terms of the research and development obligations contained in the collaboration

Revenue is recognized when persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, the price is fixed or determinable and collectability is reasonably assured. For multiple-element arrangements, each deliverable within a multiple-deliverable revenue arrangement is accounted for as a separate unit of accounting if both of the following criteria are met: (i) the delivered item or items has value to the customer on a stand-alone basis and (ii) for an arrangement that includes a general right of return relative to the delivered item, delivery or performance of the undelivered item is considered probable and substantially in management's control.

We recognize revenue from milestone payments when: (i) the milestone event is substantive and its achievability has substantive uncertainty at the inception of the agreement and (ii) we have completed our performance obligations related to the achievement of the milestone. Milestone payments are considered substantive if all of the following conditions are met: the milestone payment (a) is commensurate with either our performance subsequent to the inception of the arrangement to achieve the milestone or the enhancement of the value of the delivered item or items as a result of a specific outcome resulting from our performance subsequent to the inception of the arrangement to achieve the milestone, (b) relates solely to past performance and (c) is reasonable relative to all of the

deliverables and payment terms (including other potential milestone consideration) within the arrangement.

Determining whether and when these revenue recognition criteria have been satisfied often involves assumptions and judgments that can have a significant impact on the timing and amount of reported revenue. Changes in assumptions or judgments or changes to the elements in an arrangement could cause a material increase or decrease in the amount of revenue that is reported in a particular period.

Under certain collaborative arrangements, we are entitled to payments for certain research and development activities, including providing product and other related materials. Our policy is to account for such payments by our collaboration partners as collaboration revenue.

Research and Development

We record accrued expenses for estimated costs of our research and development activities conducted by third party service providers, which include outsourced research and development expenses, professional services and contract manufacturing activities. We record the estimated costs of research and development activities based upon the estimated amount of services provided but not yet invoiced, and include these costs in current liabilities in the balance sheets and within research and development expense in the statements of operations.

Nonrefundable advance payments for goods or services that will be used or rendered for future research and development activities are deferred and capitalized and recognized as an expense as the goods are delivered or the related services are performed.

For outsourced research and development expenses, such as professional fees payable to third parties for preclinical studies, clinical trials and research services and other consulting costs, we estimate the expenses based on the services performed, pursuant to contracts with research institutions that conduct and manage preclinical studies, clinical trials and research services on our behalf. We estimate these expenses based on discussions with internal management personnel and external service providers as to the progress or stage of completion of services and the contracted fees to be paid for such services. If the actual timing of the performance of services or the level of effort varies from the original estimates, we will adjust the accrual accordingly. Payments made to third parties under these arrangements in advance of the performance of the related services by the third parties are recorded as prepaid expenses until the services are rendered.

Stock-Based Compensation

We recognize compensation costs related to stock options granted to employees based on the estimated fair value of the awards on the date of grant, net of estimated forfeitures. We estimate the grant date fair value, and the resulting stock-based compensation expense, using the Black-Scholes option-pricing model. The grant date fair value of the stock-based awards is generally recognized on a straight-line basis over the requisite service period, which is generally the vesting period of the respective awards.

The Black-Scholes option-pricing model requires the use of highly subjective assumptions to determine the fair value of stock-based awards, including the expected term and the price volatility of the underlying stock. These assumptions include:

- *Expected term*—The expected term represents the period that the stock-based awards are expected to be outstanding. We used the "simplified" method to determine the expected life of options granted, which calculates the expected term as the average of the weighted-average vesting term and the contractual term of the option.

- *Expected volatility*—Since we are not yet a public company and do not have any trading history for our common stock, the expected volatility was estimated based on the average historical volatilities of common stock of comparable publicly traded entities over a period equal to the expected term of the stock option grants. We will continue to apply this process until a sufficient amount of historical information regarding the volatility of our own stock price becomes available.
- *Risk-free interest rate*—The risk-free interest rate is based on the U.S. Treasury yield in effect at the time of grant for zero coupon U.S. Treasury notes with maturities approximately equal to the expected term of the options.
- *Expected dividend*—We have never paid dividends on our common stock and have no plans to pay dividends on our common stock. Therefore, we used an expected dividend yield of zero.

In addition to the assumptions used in the Black-Scholes option-pricing model, we must also estimate a forfeiture rate to calculate the stock-based compensation for our awards. We will continue to use judgment in evaluating the expected volatility, expected terms and forfeiture rates utilized for our stock-based compensation calculations on a prospective basis.

Historically, for all periods prior to this initial public offering, the fair value of the shares of common stock underlying our share-based awards were estimated on each grant date by our board of directors. In order to determine the fair value of our common stock underlying option grants, our board of directors considered, among other things, timely valuations of our common stock prepared by an unrelated third-party valuation firm in accordance with the guidance provide by the American Institute of Certified Public Accountants Practice Guide, *Valuation of Privately-Held-Company Equity Securities Issued as Compensation* . For each of the valuation dates during the years ended December 31, 2016 and 2017, we applied the Guideline Publicly Traded Company Analysis (Life Science Expected Compound Method) for the valuation of our equity. We were at an early stage of development and future liquidity events were difficult to forecast. We therefore used the option-pricing method, or OPM, to determine the estimated fair value of our common stock. In an OPM framework, 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.

Given the absence of a public trading market for our common stock, our board of directors exercised reasonable judgment and considered a number of objective and subjective factors to determine the best estimate of the fair value of our common stock, including important developments in our operations, our stage of development, valuations performed by an independent third party valuation firm, sales of our redeemable convertible preferred stock, actual operating results and financial performance, the conditions in the biotechnology industry and the economy in general, the stock price performance and volatility of comparable public companies, the lack of liquidity of our common stock, and the likelihood of achieving a liquidity event, such as an initial public offering or sale.

After the completion of this offering, our board of directors will determine the fair value of each share of underlying common stock based on the closing price of our common stock as reported on the date of grant.

The intrinsic value of all outstanding options as of December 31, 2017 was $ million based on an assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover of this prospectus.

Redeemable Convertible Preferred Stock Warrants

We have issued freestanding warrants to purchase shares of redeemable convertible preferred stock. We account for these warrants as a liability in our financial statements and they are recorded at their estimated fair value, because the warrants may conditionally obligate us to transfer assets at some point in the future due to redemption provisions that are outside our control.

The fair value of the warrants at the issuance date and December 31, 2016 and 2017 was determined using the Option Pricing Method. The warrants are re-measured at each financial reporting period with any changes in fair value being recognized in the other income (expense), net in the statement of operations. We will continue to adjust the liability for changes in fair value until the earlier of the expiration of the warrants, exercise of the warrants, or conversion of the redeemable convertible preferred stock warrants into common stock warrants upon the completion of a liquidation event, including the completion of an initial public offering.

Income Taxes

As of December 31, 2017, we had federal net operating loss, or NOL, carryforwards of $91.6 million and federal general business credits from research and development expenses totaling $7.4 million, as well as state NOL carryforwards of $65.2 million and state research and development credits of $7.8 million. If not utilized, the federal NOL carryforwards will expire at various dates beginning in 2032, and the federal credits will expire at various dates beginning in 2023. The state NOL carryforwards will expire at various dates beginning in 2030, if not utilized. The state research and development tax credits can be carried forward indefinitely.

Utilization of the net operating loss carryforwards may be subject to a substantial annual limitation due to the ownership change limitations provided by the Tax Reform Act of 1986, or the Tax Reform Act, as amended, and similar state provisions. The annual limitation may result in the expiration of NOLs and credits before utilization. We have performed a Section 382 study for the period of June 16, 2003 through December 31, 2016 and concluded that it is more likely than not that we experienced an ownership change on April 9, 2007. This change does not limit our ability to use our existing NOLs within the carryforward period provided by the Internal Revenue Code, subject to availability of taxable income. However, if there is subsequent event or further change in ownership, these losses may be subject to limitations, resulting in their expiration before they can be utilized.

We assess all material positions taken in any income tax return, including all significant uncertain positions, in all tax years that are still subject to assessment or challenge by relevant taxing authorities. Assessing an uncertain tax position begins with the initial determination of the position's sustainability and is measured at the largest amount of benefit that is greater than fifty percent likely of being realized upon ultimate settlement. As of each balance sheet date, unresolved uncertain tax positions must be reassessed, and we will determine whether (i) the factors underlying the sustainability assertion have changed and (ii) the amount of the recognized tax benefit is still appropriate. The recognition and measurement of tax benefits requires significant judgment. Judgments concerning the recognition and measurement of a tax benefit might change as new information becomes available.

Quantitative and Qualitative Disclosures about Market Risk

We are exposed to market risks in the ordinary course of our business. These risks primarily include interest rate sensitivities. The primary objective of our investment activities is to preserve our 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 cash equivalents and investments in a variety of securities of high credit quality.

We had cash and cash equivalents $22.0 million as of December 31, 2017, which consisted of deposits, money market funds, commercial paper, corporate debt securities and U.S. government agency securities. Such interest earning instruments carry a degree of interest rate risk; however, historical fluctuations in interest income have not been significant.

We do not enter into investments for trading or speculative purposes and have not used any derivative financial instruments to manage our interest rate risk exposure. We have not been exposed nor do we anticipate being exposed to material risks due to changes in interest rates. A hypothetical 10% change in interest rates during any of the periods presented would not have had a material impact on our financial statements.

As of December 31, 2017, we had $14.6 million in debt outstanding, net of debt discount. Our debt with Oxford and SVB bears interest at a floating rate that equals the greater of 7.39% or the sum of the 30-day U.S. Dollar LIBOR plus 6.40% and has a maturity date of August 1, 2021. Such interest-bearing debt carries a limited degree of interest rate risk. If overall interest rates had increased or decreased by 100 basis points during the periods presented our interest expense would not have been materially affected.

JOBS Act Accounting Election

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

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

We will remain an emerging growth company until the earliest of (1) the last day of our first fiscal year (a) following the fifth anniversary of the completion of this offering, (b) in which we have total annual gross revenues of at least $1.07 billion, or (ii) 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 of the prior June 30th and (2) the date on which we have issued more than $1.0 billion in non-convertible debt securities during the prior three-year period.

Recent Accounting Pronouncements

See Note 2 to our financial statements included elsewhere in this prospectus for more information.

BUSINESS

Overview

We are a clinical stage drug discovery, development and manufacturing company focused on leveraging our proprietary integrated cell-free protein synthesis platform, XpressCF, to create a broad variety of optimally designed, next-generation protein therapeutics for oncology. We aim to design therapeutics using the most potent modalities, including cytokine-based immuno-oncology, or I/O therapeutics, antibody-drug conjugates, or ADCs, and bispecific antibodies that are directed primarily against clinically validated targets where the current standard of care is suboptimal. We believe our platform allows us to accelerate the discovery and development of potential first-in-class and best-in-class molecules by enabling the rapid and systematic evaluation of protein structure-activity relationships to create optimized homogeneous product candidates. Our mission is to transform the lives of cancer patients by using our XpressCF Platform to create medicines with improved therapeutic profiles for areas of unmet need.

Our two most advanced product candidates are wholly owned: STRO-001, an ADC directed against CD74, for patients with multiple myeloma and non-Hodgkin lymphoma, or NHL, and STRO-002, an ADC directed against folate receptor-alpha, or FolR a, for patients with ovarian and endometrial cancers. STRO-001 is currently enrolling patients in a Phase 1 trial, with initial safety data expected in 2019. We plan to submit an investigational new drug, or IND, application for STRO-002 to the U.S. Food and Drug Administration, or FDA, in the fourth quarter of 2018. We have also entered into multi-target, product-focused collaborations with leaders in the field of oncology, including a B Cell Maturation Antigen, or BCMA, and an immuno-oncology directed alliance with Celgene Corporation, or Celgene, and an oncology-focused collaboration with Merck KGaA, Darmstadt, Germany (operating in the United States and Canada under the name “EMD Serono”).

Our XpressCF Platform is the first and only current Good Manufacturing Practices, or cGMP, compliant scalable cell-free protein synthesis technology that has resulted in products in clinical development. We believe key advantages of our cell-free protein synthesis platform over conventional biologic drug discovery and development include:

- ability to rapidly produce a wide variety of protein structures in-house;
- ability to incorporate multiple, different non-natural amino acids in a single protein;
- faster cycle time;
- efficient drug discovery and early pharmacology and safety assessment; and
- rapid and predictable scalability.

We plan to leverage these capabilities to accelerate the discovery and development of potential first-in-class and best-in-class molecules.

The benefits of our XpressCF Platform have resulted in collaborations with leaders in the field of oncology, including Celgene and Merck KGaA, Darmstadt, Germany. As a result of discovery efforts enabled through our XpressCF Platform, Celgene has the right to develop up to four anti-cancer bispecific antibodies and ADCs. The lead candidate in this collaboration is a novel ADC therapeutic directed against BCMA for which an IND submission is expected in early 2019. Under the collaboration with Merck KGaA, Darmstadt, Germany, we are using our XpressCF Platform to discover and develop mono, bispecific or multispecific ADC product candidates against up to six cancer targets. The most advanced candidate in this collaboration is a bispecific ADC that is currently undergoing preclinical studies. Through March 31, 2018, we have received in aggregate approximately $240 million in payments from all of our collaborations, which includes $18.6 million in investments in our stock. We intend to selectively enter into additional collaborations with partners who are seeking efficient and effective drug discovery, preclinical development and manufacturing capabilities for the creation of novel therapeutics.

Our first internally developed product candidate is STRO-001, which we believe has the potential to be a first-in-class and best-in-class ADC directed against CD74, an antigen that is highly expressed in many B cell malignancies. In multiple preclinical models, STRO-001 has demonstrated potent anti-tumor activity. In addition, the properties of STRO-001 suggest a low likelihood of off-target toxicity and potential for an improved therapeutic index. STRO-001 is currently enrolling patients in a Phase 1 trial for multiple myeloma and NHL and we expect initial safety data in 2019.

We are also internally developing STRO-002, an ADC directed against FolRa, initially targeted for the treatment of ovarian and endometrial cancers. Our experiments show that FolRa expression can be detected in 90% or more of ovarian and endometrial cancers. In preclinical models, STRO-002 has demonstrated the potential for enhanced and selective activity against cells expressing FolR a, superior inhibition of tumor growth and greater linker stability, in comparison to experiments we conducted with a benchmark FolRa-targeting molecule. We expect to submit an IND for STRO-002 in the fourth quarter of 2018.

Although we believe our product candidates have the potential to be first-in-class and/or best-in-class and to provide potent anti-tumor activity with reduced off-target toxicity, we will need to complete additional studies to determine the safety and efficacy of our product candidates. The results of these future studies may be different than the results of our earlier studies. We have not received regulatory approval for any of our product candidates, and in order to obtain regulatory approval and commercialize our product candidates, the FDA or foreign regulatory agencies will need to determine that our product candidates are safe and effective. We may not obtain regulatory approval on the timeline we currently expect, or at all, and competing therapies and products may ultimately reach the market faster or have more favorable safety and efficacy profiles than our products candidates.

Beyond these wholly owned programs and collaborations, we are developing a broader pipeline of next-generation protein therapeutics using our XpressCF Platform. Our protein engineering and chemistry efforts are focused on maximizing therapeutic indices, and our technology allows us to rapidly test our therapeutic hypothesis in significantly more product candidates than conventional protein synthesis allows in order to identify the best molecule to advance to the clinic. Within cytokine-based immuno-oncology therapies, we have an interleukin-2, or IL-2, program for which we anticipate submitting an IND as well as an ongoing discovery program for interleukin-15, or IL-15. We are also actively pursuing the discovery and development of other novel ADC and bispecific antibodies and currently have four ADC and two bispecific T cell-engager discovery programs.

Our Strategy

Our goal is to use our proprietary XpressCF Platform to create cytokine-based immuno-oncology therapeutics, ADCs and bispecific antibodies primarily against clinically validated targets. Key elements of our strategy are to:

- **Advance STRO-001 and STRO-002 through clinical development.** We are currently evaluating STRO-001 in a Phase 1 trial for patients with advanced and/or refractory multiple myeloma and NHL. Based on compelling preclinical data, we believe STRO-001 has the potential to be a first-in-class and best-in-class ADC directed against CD74, which is highly expressed in many B cell malignancies. We have initiated the Phase 1 trial and expect initial safety data in 2019. We are currently conducting IND-enabling studies for STRO-002 for the treatment of patients with ovarian and endometrial cancers that express the clinically validated target, FolRa. Given STRO-002's homogeneous design, we believe it could be a best-in-class FolRa-targeted ADC and provide greater activity, stability and safety as compared to other investigational agents in development. We plan to submit an IND application for STRO-002 to the FDA in the fourth quarter of 2018.

- **Develop a diverse pipeline of novel product candidates with optimal therapeutic profiles.** We intend to build a broad pipeline of optimally designed, next-generation protein therapeutics for oncology using our XpressCF Platform. Our cell-free-based protein synthesis system enables the rapid and systematic evaluation of protein structure-activity relationships, which we believe will accelerate the discovery and development of molecules. We aim to take advantage of the most potent modalities, including cytokines, ADCs and bispecifics, to create drugs that are directed primarily against clinically validated targets where the current standard of care is suboptimal.
- **Strategically pursue additional collaborations to broaden the reach of our XpressCF Platform.** To maximize the value of our XpressCF Platform technology, we have entered into multi-target, product-focused collaborations with leaders in the field of oncology, including a BCMA and immuno-oncology directed alliance with Celgene and an oncology-focused ADC collaboration with Merck KGaA, Darmstadt, Germany. We intend to selectively enter into additional collaborations with partners who are seeking efficient and effective drug discovery and manufacturing capabilities for the development of novel therapeutics. As with our current collaborations, we intend to retain certain development and commercial rights to maximize the future potential value of product candidates discovered and developed using our XpressCF Platform.
- **Maintain worldwide rights to our core product candidates.** We own the worldwide commercial rights to our lead product candidates, STRO-001 and STRO-002. We have assembled a management team with extensive experience in the biopharmaceutical industry, including drug discovery and development through commercialization, and our plan is to independently pursue the development and commercialization of our product candidates. As we continue to advance our products, we may opportunistically pursue strategic partnerships that maximize the value of our pipeline.
- **Selectively expand the scope of our XpressCF Platform into other therapeutic areas.** Due to the versatility of our platform, we can explore additional therapeutic areas outside of oncology, such as autoimmune and metabolic diseases. We intend to make further investment in the development of our XpressCF Platform to expand our pipeline of product candidates.

Cancer Remains a Major Unmet Medical Need

Cancer is the second leading cause of mortality in the United States, accounting for nearly one in every four deaths. Approximately 40% of Americans will develop cancer and, according to the American Cancer Society, there will be 1.7 million new cases of cancer and 601,000 deaths due to cancer in the United States in 2018.

Traditional Cancer Therapeutics

Cancer treatment has traditionally included chemotherapy, radiation, surgery or a combination of these approaches. Chemotherapy agents and other small molecule targeted therapies can be effective in certain types of cancer, but they can also cause toxicities that may lead to life-threatening consequences, lower quality of life or untimely termination of treatment. Furthermore, these agents offer limited efficacy in many types of cancer.

Over the last twenty years, new paradigms of cancer research and treatment have emerged to address the limitations of existing treatments. Some of the most promising new approaches involve biologic therapies, including monoclonal antibodies. Monoclonal antibodies are proteins that bind to antigen targets on tumor cells and inhibit tumor growth, or block processes that provide nourishment for the tumor. As a drug class, monoclonal antibodies have transformed the treatment of oncology and represent some of the top selling therapies on the market. For example, Rituxan, Herceptin and Avastin dominated the market with over $20 billion in combined 2017 annual sales.

Despite the success of conventional monoclonal antibodies, they still have limitations. For example, the response seen with monoclonal antibodies can be variable, with some patients responding, while others do not. In addition, the response is often not durable and many patients relapse or become refractory to treatment. Also, safety and tolerability concerns often limit the use of higher, potentially more efficacious doses. We believe our XpressCF Platform will provide enhanced therapeutic approaches for treating cancer to address these unmet needs. A new generation of biologics is emerging, including immuno-oncology agents, ADCs and bispecific antibodies. The expectation is that multiple therapeutic modalities will be used in novel combinations to treat patients and provide the most potent anti-cancer effect.

Immuno-oncology

The immune system is capable of recognizing and eliminating tumor cells. However, some cancer cells over express proteins, called immune checkpoints, which suppress the immune system, and enable the tumor cells to evade destruction. Immuno-oncology has emerged as a promising new therapeutic approach that aims to enhance anti-tumor immune responses by using monoclonal antibodies to overcome these immune checkpoint blockades.

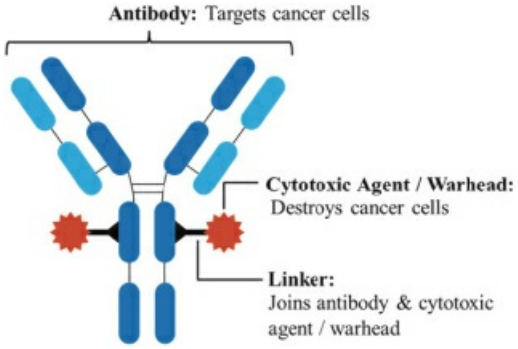
Monoclonal antibody immune checkpoint inhibitors, such as Opdivo, Keytruda and Yervoy, have been approved for the treatment of a number of cancer indications such as, melanoma, non-small cell lung cancer, or NSCLC, renal cancer and bladder cancer. During 2017 the combined sales of these three checkpoint inhibitors were approximately $10 billion and by 2022, forecasted sales are projected to exceed $20 billion.

Limitations to Current Immuno-oncology Approaches

The effectiveness of any cancer immunotherapy is dependent on the status of an individual patient's immune system. While many single-agent immunotherapies have resulted in remarkable clinical results, only a minority of patients have realized durable benefits from these treatments. An immunotherapy cannot succeed if a patient's immune cells are too impaired to benefit from a particular checkpoint inhibitor or cytokine-based therapeutic. As a result, combination therapies have been explored clinically and are designed to provide an additional boost to revive a patient's ability to mount an immune response against their tumor. However, combination therapies will likely have to provide a significant risk-benefit advantage in order to justify the cumulative costs of combining two separate immunotherapies. New single agent approaches to achieving combinatorial stimulation of a patient's immune system may therefore create the preferred option for many patients and physicians.

Antibody-Drug Conjugates

After two decades of industry efforts, several new modalities of highly potent monoclonal antibody-based therapies have emerged, including ADCs. The key components of ADCs include an antibody, a stable linker and a cytotoxic agent (warhead). The antibody is used to target and deliver the cytotoxic agent to tumor cells. ADCs can be mono, bispecific or multi-specific. The intended result of this powerful and targeted approach is greater tumor cell death and less systemic tolerability issues as compared to traditional chemotherapy. The following diagram shows the component parts of an ADC.

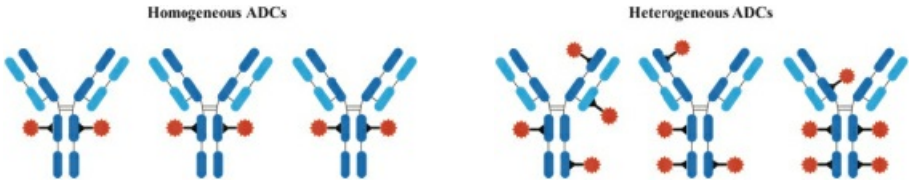


Currently, there are more than 100 ADCs being explored in clinical development. Kadcyla and Adcetris are ADCs that have been approved for the treatment of specific subsets of breast cancer and lymphoma, respectively. In the second half of 2017, Besponsa and Mylotarg were approved for the treatment of specific subsets of leukemia. All four of these newly approved therapies demonstrate that ADCs have an emerging role in the armamentarium of cancer therapeutics.

Limitations to Current ADC Approaches

Despite the approvals of these ADCs, there have been challenges in achieving the full clinical potential of this modality. We believe these challenges are directly related to the following:

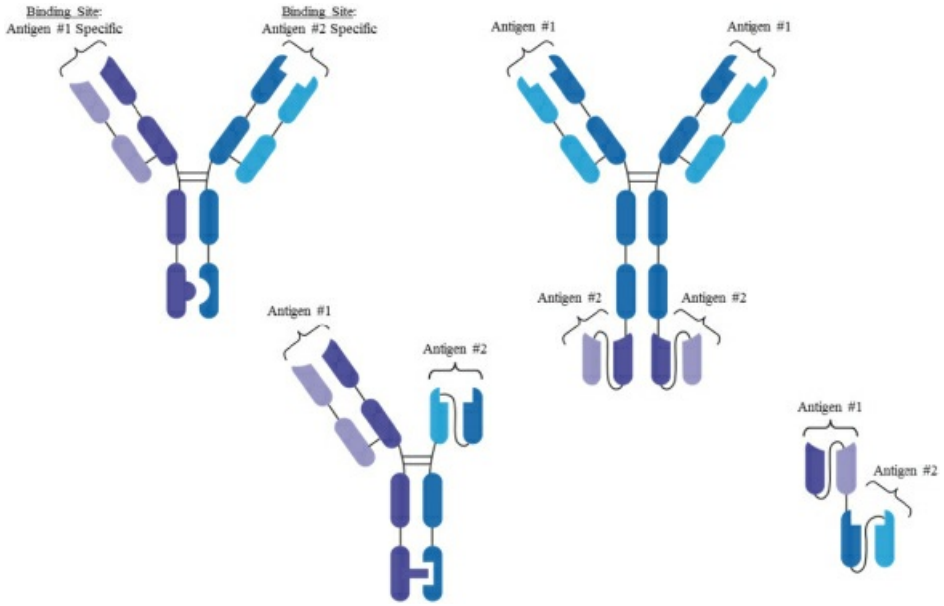
- *Heterogeneity as a Result of Imprecise and Variable Conjugation.* The approved ADCs and many that are in development use imprecise technologies that opportunistically attach the cytotoxic payload to naturally occurring amino acids within the antibody and result in a heterogeneous mixture. In these mixtures, the number and site location of the linker-warhead can vary significantly from antibody to antibody within the single ADC product. These many different forms in the final product are likely to perform differently, with some forms carrying insufficient cytotoxin to kill the tumor, and some forms carrying too high a load resulting in unintended toxicities. The overall performance of the heterogeneous ADC is therefore the average activity of the different species within the ADC mixture, which may limit both efficacy and tolerability. For these reasons, we believe this current class of ADCs, which are heterogeneous mixtures, are suboptimal for effective cancer treatment. The figure below compares homogeneous and heterogeneous ADCs.



- *Suboptimal Linker-Warhead Positioning.* Conventional ADC technologies use conjugation chemistry to attach linker-warheads to naturally occurring amino acids within an antibody; therefore, the position is dictated by the pre-existing amino acid sequence. Published research studies have demonstrated that linker-warhead positioning along an antibody can have significant effect on the ability of an ADC to kill tumor cells, with some positions resulting in suboptimal killing. This position effect also contributes to the challenge of a heterogeneous ADC mixture. We believe that superior ADCs can be developed using technologies that allow linker-warhead positioning to be fine-tuned to empirically determined sites for maximal therapeutic benefit.
- *Instability Due to Linker Design*. One of the major challenges in ADC technology has been to develop linking chemistries that ensure that warheads are only released from the antibody within a tumor cell, and not released within the blood or healthy tissue as the ADC is delivered systemically and travels through the body. We believe that safer ADCs can be developed by utilizing non-natural amino acids that enable state-of-the-art chemistries to ensure that the warhead is not prematurely released.

Bispecific Antibodies

Bispecific antibodies are engineered proteins that can simultaneously bind to two different types of antigens. Targeting two individual antigens simultaneously is expected to drive a larger clinical impact than conventional monoclonal antibodies. As a class, bispecific antibodies are projected to have potential sales on a worldwide basis of up to $4.4 billion by 2023 and over 60 molecules are currently in clinical development. Bispecific antibodies can be engineered in a variety of different formats as shown below.



Bispecific antibodies come in a wide variety of structural formats that can be used in multiple therapeutic modalities, including dual blocking bispecific antibodies, T cell-engaging bispecific antibodies and dual antigen targeting bispecific antibodies. Given the potential synergistic nature of these approaches, they have the potential to provide a similar, if not improved, therapeutic benefit as compared to a traditional combination approach. In addition, they may also demonstrate an improved safety and tolerability profile. These characteristics could allow for a wider therapeutic index as compared to the comparable combination therapy approach. Additionally, combining two mechanisms in a single bispecific antibody could have advantages in manufacturing, clinical development and patient convenience.

Limitations to Current Bispecific Antibody Approaches

Bispecific antibodies are highly engineered proteins with structural features not found in nature. The generation of these molecules therefore presents significant design and development challenges especially when using conventional cell-based technologies. These challenges include:

- *Optimization Challenges.* Bispecific antibodies simultaneously engage two different targets and therefore have precise requirements for the binding properties and spatial orientation of each domain in order to have pharmacologic activity. Combinatorial pairing of antibody binding arms to identify an optimized bispecific antibody requires many distinct cell lines that must be engineered during the discovery process, a cumbersome process when using conventional cell-based technologies.

- *Challenges to T cell-Engagers.* Discovery of bispecific T cell-engagers is further limited by the challenge of designing bispecific pairs that can safely activate T cells specifically in the tumor environment without activating peripheral T cells, which would result in severe toxicities.
- *Difficulties in Protein Expression and Manufacturing.* Because bispecific antibodies are highly engineered proteins, conventional cell-based systems have significant difficulties in protein expression, particularly at a larger scale.

We believe that new protein engineering technologies will enable significantly broader design opportunities to discover new bispecific antibodies optimized for therapeutic activity, safety and manufacturability.

Cytokine-Based Immuno-oncology Therapeutics

Cytokines are small biologically active proteins that play an essential role in immune cell function. Cytokines are important for cell-to-cell communication and they are responsible for controlling immune cell growth and differentiation. Recombinant human cytokines were among the first biotechnology products engineered for therapeutic use, and, in the field of oncology, cytokines that stimulate the immune system to attack cancer cells have been viewed as a potential new approach.

IL-2 is a cytokine that plays a central role in T cell function, contributing to the careful balance between helpful and harmful immune responses. It is a powerful activator of the immune system, but it can also suppress immune responses through certain specialized T cells that have suppressive function. The only approved IL-2, Proleukin, has been shown to induce complete regression in a small number of renal cell carcinoma and metastatic melanoma patients. However, it also results in severe toxicities and administration requires close medical monitoring, limiting its therapeutic use. As a result, scientists have focused research on finding ways to modify IL-2 proteins and reduce toxicity while maintaining therapeutic benefit.

The proven efficacy of new immuno-oncology therapeutics has created further impetus to develop a new generation of modified IL-2 proteins, in the hopes that they may be used in combination with immunotherapies. Nektar Therapeutics recently reported that their molecule, NKTR-214, a modified IL-2 protein, has yielded promising results in a Phase 1/2 trial. When used in combination with the checkpoint inhibitor Opdivo, NKTR-214 showed important clinical responses in melanoma, renal cell carcinoma and NSCLC patients. Of note, there were no severe immuno-toxicities observed at or below the recommended Phase 2 dose level, indicating that this combination therapy may provide safe and effective treatment for a wide variety of solid tumors. The observed efficacy of NKTR-214 in combination with an immune checkpoint inhibitor indicates the potential of this powerful new approach, and creates opportunities for new IL-2 and other cytokine-based therapeutics.

Our Proprietary XpressCF Platform

While cytokine-based immuno-oncology therapeutics, ADCs and bispecific antibodies hold significant promise, drug developers working with these complex biologics face significant design and development challenges. Optimizing these complex biological structures is a challenging, trial and error process that requires the refinement of several properties in tandem. This iterative process is cumbersome and fraught with significant limitations. As a result, the drug candidate nominated for development is often plagued by inefficient design properties, which then translates to a suboptimal therapeutic index when investigated in the clinic.

Our XpressCF Platform seeks to address these significant shortcomings. We believe our cell-free-based protein synthesis technology allows for efficient and proper design exploration to be conducted prior to nominating a lead drug candidate. In addition, we believe we can optimally design these types of complex biologics in a manner that is ideal for subsequent production at relevant scale and manufacture. We are the only company with products in clinical development that has the capability to produce cell-free-based protein synthesis at scale. We believe we have a significant advantage over other development approaches in this space.

Limitations of Current Cell-Based Synthesis Approaches

All existing therapeutic proteins rely on cell-based design, production and manufacturing technologies. The conventional biotechnology approach for the production of these complex biologics relies primarily on CHO cell lines. This first requires low yield transient production from cells that enable characterization of a new protein over several months. This is then followed by development of stable cell lines over several months to a year to enable larger scale preclinical, clinical and commercial production. The characterization process has to be reproduced for every minor variant of the therapeutic protein, which may or may not result in improved properties. Each change requires development of new cell-based methods to generate protein of sufficient quality and quantity to evaluate. Therefore, it is extremely laborious and resource intensive to elucidate principles of structure-activity relationship, and drug discovery is limited by the number of cell lines that can be practically managed in parallel. In addition, they have limited ability to introduce non-natural amino acids into proteins. We believe these limitations hinder the efficiency of drug discovery and often result in suboptimal protein selection.

Overview of Our XpressCF Platform

Our XpressCF Platform is fundamentally different from the conventional cell-based protein synthesis approach in that we separate the production of the cell mass from the production of the protein.

We first generate a cellular mass from our propriety cell line from which we harvest the inner cellular machinery for making proteins. The cellular mass is generated from our highly engineered variant of Escherichia coli, or E.coli bacteria, and has been optimized to make extract that produces complex mammalian proteins. These cells are grown over the course of several days, harvested, broken apart, clarified and stored as a cell mass for future production of our protein therapeutics. We refer to this proprietary cell mass as extract, or XtractCF. The extract includes necessary components for energy production, transcription and translation and can be used to support cell-free protein synthesis. This extract can then be used agnostically to manufacture a wide variety of therapeutic proteins and protein fragments without the need to generate further cell lines.

As a result, protein synthesis then becomes a predictable and reproducible biochemical reaction, independent of the constraints of a cell. A specific DNA sequence is added to the extract, which results in the coding and expression of the desired protein in less than 24 hours. Using this process, we express hundreds or thousands of DNA sequences simultaneously within the same cell-free extract system and therefore can make and purify hundreds or thousands of unique proteins at the same time. This allows us to perform rapid expression, testing and characterization of many variants early in discovery to elucidate structure-activity relationships. Structure-activity relationship refers to how changes to the structure of a protein can lead to improvements in a molecule's properties, such as binding, internalization, functional activity and stability, which are properties that are key to the therapeutic protein's efficacy and tolerability in the patient. We are thereby able to optimize many properties with high specificity including: binding efficiency to each antigen target, spatial orientation, linker design, target killing efficiency, immunological activity, protein expression and folding efficiency and stability.

Advantages of Our XpressCF Platform

We believe our drug discovery platform provides significant advantages over conventional cell-based protein synthesis approaches and has the ability to produce a large number of variants during the development stage, while preserving the ability to design and test large families of molecules for optimized efficacy and safety features.

We believe the advantages of our cell-free-based protein synthesis technology platform include:

- *Ability to Rapidly Produce and Evaluate a Wide Variety of Protein StructuresIn-house.* By decoupling the production of the cell-free extract from the production of the protein, we are able to stockpile large quantities of cell-free extract from which we are able to manufacture a wide variety of proteins without the need to generate individual cell lines, including cytokine-based immuno-oncology therapeutics, ADCs and bispecific antibodies.
- *Ability to Incorporate Non-Natural Amino Acids.* Our technology allows for efficient incorporation of a non-natural amino acid in any location in an antibody or protein with high precision and fidelity, which we believe allows for the design of optimized protein conjugates.
- *Faster Cycle Time.* Our ability to produce thousands of protein variants in parallel overnight allows us to rapidly express, test and characterize many variants early in discovery to elucidate structure-activity relationships and identify opportunities for superior therapeutic profiles, as well as new intellectual property. We are therefore able to efficiently optimize many properties with high specificity in parallel.
- *Efficient Drug Discovery and Early Pharmacology and Safety Assessment.* Our cell-free technology creates the opportunity for accelerated pharmacology and safety assessments during the design and discovery phase of product development. This approach allows us to generate optimized proteins early in our discovery process, which can be transitioned seamlessly to clinical scale production using the same cell-free process.
- *Rapid and Predictable Scalability*. Our cell-free extract does not need to be modified in any manner as we scale from research to preclinical to clinical to commercial production. This enables us to move more rapidly to the clinic by eliminating master cell banking activities and significantly de-risks scale-up to manufacturing.

Our XpressCF Solution for cytokine, ADCs and bispecific antibodies-based drug therapeutics

As a result, we believe our technology enables new approaches to cytokine, ADCs and bispecific antibody-based drug discovery, development and manufacturing. Key attributes are:

- *Homogeneous Design.* Our XpressCF Platform enables precise and specific placement of non-natural amino acids in defined numbers and positions within our engineered proteins. These non-natural amino acids then serve as highly stable attachment sites, also known as conjugation sites, for chemical functional groups. For example, we attach linker-warheads to non-natural amino acids within our antibodies to create single-species, tumor-killing ADCs. Similarly, we attach polyethylene glycol polymers onto non-natural amino acids within our cytokine-based therapeutics to create single-species immunotherapies designed for extended pharmacokinetics and safety.
- *Experimentally Defined Structure-Activity Relationships.* Our cell-free technology enables rational design of protein therapeutics through a rapid, reiterative process that experimentally defines structure-activity relationship for cytokine-based therapeutics, ADCs and bispecific antibodies. This approach allows us to explore a wide variety of structural features and formats in parallel as we optimize therapeutic candidates. For example, the precise location of chemical conjugation sites directly affects the activity of both ADCs and cytokine-based therapeutics. Our proprietary technology is key to our ability to define the best number and positions of non-natural amino acids for conjugation based on: conjugation efficiency; functional activity/pharmacological properties; and pharmacokinetics and safety. This design flexibility is also an important aspect of our discovery approach to other protein therapeutics. For example, we are able to make and directly compare a variety of pairings and structural formats for our immuno-oncology bispecific antibody and bispecific T cell-engager programs. This allows us to identify antibody pairs and formats with the best binding properties, spatial orientations and structural stability to create the optimal balance of therapeutic activity and safety.

- *Rapid and Efficient Transition from Discovery to the Clinic.* Protein therapeutics can encounter obstacles, or even fail, during the transition from research-grade cell lines to cGMP cell lines appropriate for clinical development and commercialization. Our XpressCF Platform can rapidly produce different protein types from a single proprietary extract, which can be scaled for discovery, development and ultimately, we believe, commercialization of cytokine-based immuno-oncology therapeutics, ADCs and bispecific antibodies and bispecific T cell-engagers.

Accordingly, we use our XpressCF Platform to discover and develop cancer therapeutics by empirically determining the optimum structure-activity relationships for cytokine-based immuno-oncology therapeutics, ADCs, bispecific antibodies, and transitioning those products to cGMP compliant manufacturing. The following chart illustrates the applicability of these attributes across the range of modalities we are developing.

XpressCF Attributes for Various Therapeutic Modalities

XpressCF Attribute	ADCs	Bispecific I/O, Bispecific ADCs and Bispecific T cell-engagers	Cytokine-based therapeutics
Homogeneous Design Stable, site-specific attachment of chemical functionality	✓	✓ (if needed)	✓
Experimentally Defined Structure-Activity Relationships Rapid, direct comparison of a wide variety of protein variants	✓	✓	✓
Rapid and Efficient Transition from Discovery to the Clinic Single-source scalability from discovery to clinical / commercial	✓	✓	✓

Our Collaborations Demonstrate our Capabilities

Our XpressCF Platform has garnered the attention of leading pharmaceutical and biopharmaceutical companies and resulted in collaborations to discover and develop novel therapeutics. We have leveraged these strategic partnerships to extend our own capabilities and broaden the scope of our XpressCF Platform. Through March 31, 2018, all of our collaborations have provided us with approximately $240 million in payments, which includes $18.6 million in investments in our stock. Our collaborations include:

- ***Celgene Programs***. We have granted Celgene the right to jointly develop up to four anti-cancer bispecific antibodies and/or ADCs directed primarily to immuno-oncology targets. The lead candidate generated for this collaboration is a novel ADC therapeutic directed against the target BCMA for which an IND submission is expected in early 2019.
- ***Merck KGaA, Darmstadt, Germany Programs.*** We granted Merck KGaA, Darmstadt, Germany the right to designate up to six cancer targets against which we will discover, develop and optimize up to three mono, bispecific or multi-specific ADC product candidates per target. Merck KGaA, Darmstadt, Germany has selected all six possible target antigens under the strategic research and development partnership. The most advanced candidate in this collaboration is a bispecific ADC, which is currently in preclinical development.

Our Pipeline

Leveraging our proprietary cell-free-based protein synthesis XpressCF Platform, we have generated a portfolio of cytokine-based immuno-oncology therapeutics, ADCs and bispecifics primarily against clinically validated targets. The following chart provides an overview of the status of each of our programs:

(a) For the four Celgene collaboration programs noted in the chart, Celgene currently has ex-U.S. rights and Sutro currently has U.S. rights. Celgene will automatically obtain worldwide rights to the first product candidate to achieve IND clearance in the United States and can obtain worldwide rights to the second product candidate to have an active IND in the United States by making certain payments to us as specified in the Celgene collaboration section.

(b) EMD Serono is the U.S. healthcare business of Merck KGaA, Darmstadt, Germany.

Our Product Candidates

STRO-001, an ADC Directed Against the Cancer Target CD74

Overview

We are developing STRO-001, an optimally designed ADC directed against the cancer target CD74 for multiple myeloma and NHL. STRO-001 was designed and optimized for maximal therapeutic index by placing linker-warheads at specific locations within the antibody using our proprietary XpressCF Platform. STRO-001 is currently enrolling patients in a Phase 1 trial and we expect initial safety data in 2019.

CD74 Overview and Current Limitations

CD74 is a transmembrane glycoprotein, or a protein with an attached sugar that spans the inside and outside of a cell. While normal tissues appear to have minimal CD74 expression levels, CD74 is an important B cell target for multiple myelomas and lymphomas. CD74 is expressed in approximately 90% of B cell cancers, including multiple myeloma and lymphoma. Additionally, in a study conducted with a collaborator, we found that CD74 was highly expressed in 75% to 98% of tissues samples derived from individual patients with a variety of B cell malignancies, as illustrated in the table below.

	Comprehensive Immunohistochemistry Study	
Tumor Subtype	**Tissue Samples CD74 Positive / Total**	**% Positive**
Follicular lymphoma	148 / 151	98%
Multiple myeloma	101 / 134	75%
Diffuse large B cell lymphoma	135 / 140	96%
Mantle cell lymphoma	19 / 21	90%

Currently, there are no approved therapeutics that specifically target CD74 for treatment of B cell malignancies. We believe earlier ADCs being developed against the target CD74 were ineffective either because they failed to achieve sufficient killing of malignant B cells or they were unable to achieve a sufficient therapeutic benefit before toxicities limited further dose escalations.

B Cell Malignancies Overview and Current Limitations

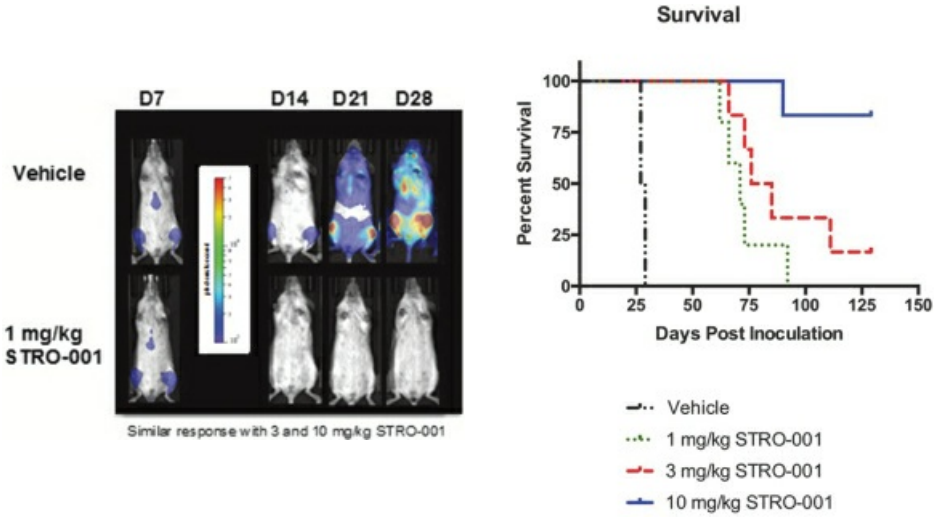
B cell malignancy tumor subtypes include multiple myeloma and NHL, which includes mantle cell lymphoma, diffuse large B cell lymphoma, or DLBCL, and follicular lymphoma. In the United States alone, there are approximately 100,000 new B cell malignancies cases annually, with a prevalence of more than 500,000 cases. Although several therapeutics have recently been approved for the treatment of specific B cell malignancies, including immunotherapies and targeted kinase inhibitors, unmet need persists. These therapeutics are typically used in combination with other agents to provide the most potent anti-cancer effect. While these new therapies have demonstrated improvements in survival, the majority of these patients ultimately relapse during treatment and some experience a resistance to therapy.

Our Solution, STRO-001

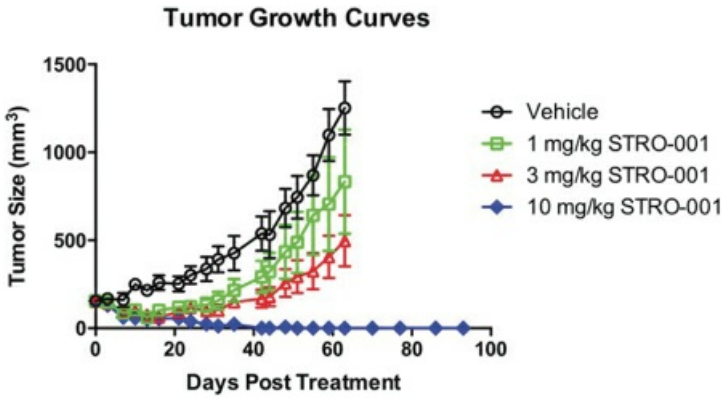
Our first internally developed product candidate is STRO-001, which we believe has the potential to be a first-in-class and best-in-class ADC directed against the cancer target CD74, an antigen that is highly expressed in many B cell malignancies and is an attractive target for an ADC therapeutic, given its rapid internalization by the cell. STRO-001 was developed using our proprietary XpressCF Platform and is composed of an antibody targeting the CD74 protein antigen that is stably conjugated to two specific sites on the antibody using a non-cleavable linker to a highly potent cytotoxic drug, a maytansinoid derivative. STRO-001 degrades inside of tumor cells to release very potent intracellular catabolites whose hydrophilic nature results in poor permeability into surrounding cells. We believe this decreases the potential of off-target effect in normal tissues. From a safety perspective, we designed STRO-001 to have an optimal potency to toxicity ratio. We rationally selected a homogeneous ADC with a drug-antibody ratio, or DAR, of two. Heterogeneous ADCs typically have DARs that range from zero to eight, with lower DARs generally being associated with less potency and higher DARs generally being associated with a negative impact on pharmacokinetics and toxicity. We chose a DAR of two after demonstrating that DARs of four or six did not increase the efficacy of STRO-001.

Preclinical Data

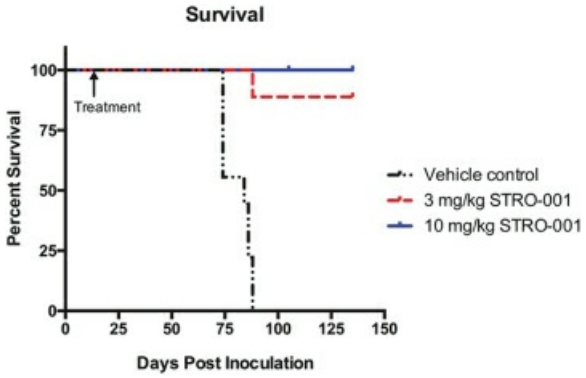
While additional clinical testing will be needed to determine the safety and efficacy of STRO-001 and to obtain regulatory approval, if ever achieved, STRO-001 has demonstrated potent *in vitro* cell killing activity across multiple B cell tumor lines. Based on these observations, we have used murine tumor models to determine whether STRO-001 also demonstrates cell killing *in vivo*. In these models, human tumor cell lines are implanted and allowed to grow in mice to subsequently test the activity of anti-cancer agents. Although these murine models do not address safety, they are commonly used to provide experimental proof-of-concept for anti-cancer activity against different tumor types. For example, in tumor bearing mice, single doses of 1, 3, and 10 mg/kg STRO-001 significantly extended survival in the MM1S-luc bioluminescent disseminated human multiple myeloma xenograft model as shown below on the right. The figure on the left shows bioluminescence imaging of tumor cells during the first month after dosing. This image shows that while the bioluminescent tumor cells disseminated throughout the body in the vehicle treated mice, the tumor cells were cleared from the STRO-001 treated mice. Furthermore, at the high dose, when their bone marrow was assessed at day 129, of the surviving five out of six animals, all appeared to be tumor-free.



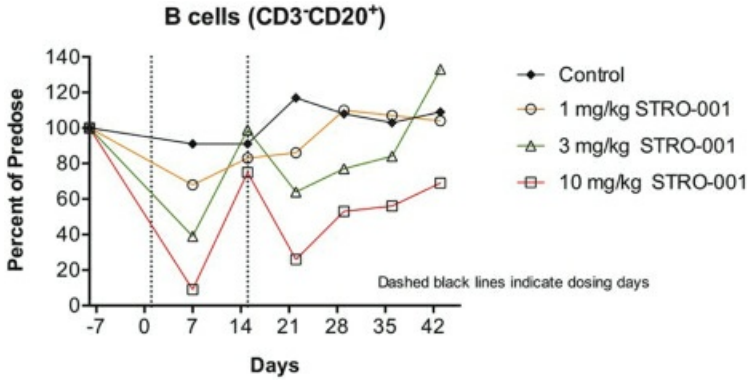
STRO-001 demonstrated similar potent efficacy in a murine xenograft model of human DLBCL, the most common form of NHL. In the study shown below, seven out of seven mice exhibited complete tumor regression with no tumor regrowth 90 days after treatment with a single 10 mg/kg dose of STRO-001. Moderate anti-tumor activity was observed with lower doses of 1 or 3 mg/kg, demonstrating a clear dose-response relationship.



We also examined the potential for STRO-001 to treat human mantle cell lymphoma in a preclinical murine xenograft model. In the study shown below, mice bearing mantle cell tumors had a mean survival of 81 days. In contrast, 90% to 100% of mice treated with a single dose of 3 or 10 mg/kg STRO-001 survived to the end of the study at day 135. Taken together, these studies demonstrate that STRO-001 has potent anti-tumor activity in three different murine models of human B cell malignancy.



We also investigated the safety of STRO-001 in a toxicology study in non-human primates at several dose levels administered on day 1 and day 15. Hematological toxicity was observed consistent with the known effects of the STRO-001 cytotoxic tubulin inhibitor component. No other drug-related toxicities were observed. Importantly, however, we observed clear evidence of STRO-001 pharmacodynamic activity as demonstrated by dose-dependent B cell ablation and recovery as shown below.



Clinical Development Plan

The Phase 1 trial for STRO-001 is an open-label study that will evaluate STRO-001 as a monotherapy for patients with multiple myeloma and NHL. The trial will be conducted in two parts: dose escalation and dose expansion. The primary objectives of the trial are to determine the safety and tolerability profile of STRO-001, determine the recommended Phase 2 dose and interval and evaluate preliminary anti-tumor activity. The secondary objectives are to characterize the human pharmacokinetics of STRO-001 and additional safety, tolerability and efficacy measures.

Our Phase 1 trial of STRO-001 is enrolling adult patients with advanced and/or refractory multiple myeloma and NHL (including DLBCL, mantle cell lymphoma and follicular lymphoma) who are refractory to, or intolerant of, all established therapy known to provide clinical benefit for their condition. Multiple myeloma and NHL patients will be enrolled in two separate dose escalation cohorts, starting initially with an accelerated dose titration design. We estimate that there will be approximately 30 patients in each cohort and treatment is scheduled for days one and fifteen in a 28-day cycle.

After the recommended Phase 2 dose level is determined, patients could be enrolled into four dose expansion cohorts (myeloma, DLBCL, mantle cell lymphoma and follicular lymphoma) if anti-tumor activity is observed during the dose escalation phase. We expect to enroll up to 40 patients in each of the four dose expansion cohorts.

We submitted our IND for STRO-001 in December 2017 and the first patient was dosed in April 2018. We expect initial safety data from our ongoing Phase 1 trial in 2019.

STRO-002, an ADC Directed Against the Target Folate Receptor-Alpha (FolR a)

Overview

We are developing STRO-002, an optimally designed ADC directed against the cancer target FolR a, initially targeted for ovarian and endometrial cancers. STRO-002 was designed and optimized for an improved therapeutic index by placing a precise number of linker-warheads at four specific locations within the antibody using our proprietary XpressCF Platform. We expect to submit the IND for STRO-002 in the fourth quarter of 2018.

FolRa Overview

FolRa is a cell-surface glycoprotein, which is believed to be important for supporting DNA synthesis in rapidly dividing cancer cells. FolRa exhibits limited expression and distribution in normal tissues.

High levels of FolRa have been found in multiple cancer types, including epithelial ovarian cancer, endometrial adenocarcinoma, triple negative breast cancer and non-small cell lung cancer. Expression appears to correlate with disease progression in ovarian cancer and continues to be expressed following chemotherapy treatment.

In order to better understand FolRa expression, we tested 187 samples in a tissue microarray from ovarian and endometrial cancer patients. The table below shows that more than 90% of ovarian and endometrial cancer tissue samples express FolRa. Furthermore, medium to high levels of expression were observed for 80% of ovarian cancer samples and 78% of endometrial cancer samples.

	FolRa Expression			
Tumor Type	**Negative**	**Low**	**Medium**	**High**
Ovarian Cancer (90 tissue samples)	10%	10%	16%	64%
Endometrial Cancer (97 tissue samples)	7%	15%	24%	54%

Ovarian Cancer Overview

Ovarian cancer is the most common cause of cancer death from gynecologic tumors in the United States, and the fifth most common cause of cancer death in women. In the United States alone, there are about 23,000 new cases of ovarian cancer annually, and more than 14,000 women die of this disease each year. Given that early stages of the disease cause minimal, nonspecific symptoms or is asymptomatic, 60% of patients with ovarian cancer are diagnosed in an advanced stage, for which the prognosis is poor. Standard pre- or post-operative chemotherapy for ovarian cancer is combination therapy with a platinum compound and a taxane, for example, carboplatin and paclitaxel, which achieves a complete response in between 70% to 80% of patients. Patients refractory or resistant to platinum-based treatments are then treated with a host of additional palliative chemotherapeutic agents, each showing only marginal benefit. This represents a significant unmet need and multiple therapies are being tested in the clinic for treatment of these patients, including PARP inhibitors and PD-1 checkpoint protein inhibitors.

Endometrial Cancer Overview

There is also a significant unmet need in the treatment of recurrent or metastatic endometrial cancer. In the United States alone, there are about 60,000 new cases of endometrial cancer annually, and approximately 10,500 patients die of this disease each year. First-line treatment for stage III/IV disease is commonly paclitaxel/carboplatin, with no standard of care or FDA-approved treatment options for recurrent disease. With the lack of available therapies for these patients, long-term survival prospects are poor and novel treatments offering even a modest improvement in progression-free survival or overall survival may be considered for expedited regulatory approval.

Limitations to Current FolRa-Targeted Therapeutics

There have been a number of folate- or FolR a-targeted therapies in development including naked antibodies, small molecule drug conjugates, ADCs and T cell retargeting molecules. The most clinically active agent targeting FolRa to date has been Immunogen's mirvetuximab soravtansine (IMGN853), an ADC composed of a FolRa-binding antibody linked to the tubulin-disrupting maytansinoid, DM4, via a cleavable linker.

Immunogen's IMGN853 monotherapy showed clinical activity in a Phase 1 trial of patients with platinum-resistant ovarian cancer, with dose-limiting toxicities including blurred vision, diarrhea, headache, nausea, vomiting and fatigue.

Our Solution, STRO-002

STRO-002 is directed against the cancer target FolRa, which is highly expressed in multiple cancer types, including ovarian cancer and endometrial cancer. This property, together with the highly restricted expression of FolRa on normal tissues, make FolRa a promising ADC approach.

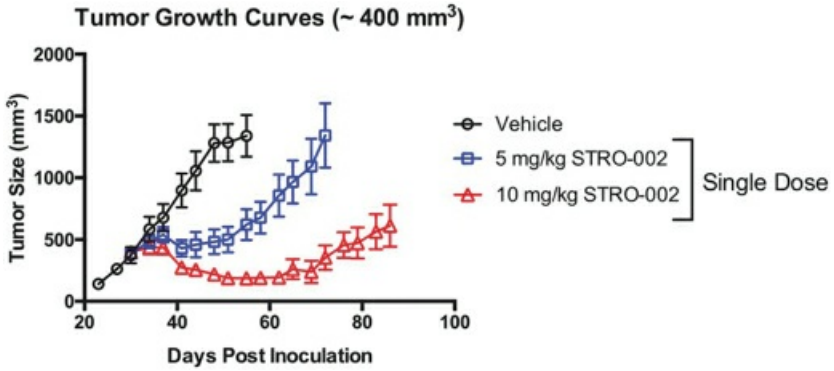
STRO-002 employs a cleavable linker that releases a cytotoxic drug inside of tumor cells, while being stable and resistant to cleavage in general circulation. The cytotoxic drug used is our proprietary hemiasterlin moiety. From a safety perspective, we designed STRO-002 to have the optimal potency to safety ratio. We rationally selected a homogenous ADC with an optimized DAR of four.

Based on preclinical findings, we believe our efficient homogeneous design of STRO-002 could provide anti-tumor activity, stability and safety with the potential to minimize off-target damage and improve clinical impact by reducing dose-limiting toxicities. We believe an improved therapeutic index could differentiate STRO-002 from conventional technology for the treatment of ovarian cancer and endometrial cancer. To test this, we have created a benchmark FolRa-targeting surrogate molecule based on conventional technology that has a heterogeneous ADC, with a similar DAR utilizing a DM4 linker-warhead. We have tested this benchmark molecule against STRO-002 in multiple preclinical models. However, additional preclinical and clinical testing will be needed to determine the safety and efficacy of STRO-002 and to obtain regulatory approval, if ever. STRO-002 may not ultimately provide a greater therapeutic benefit than the current standard of care.

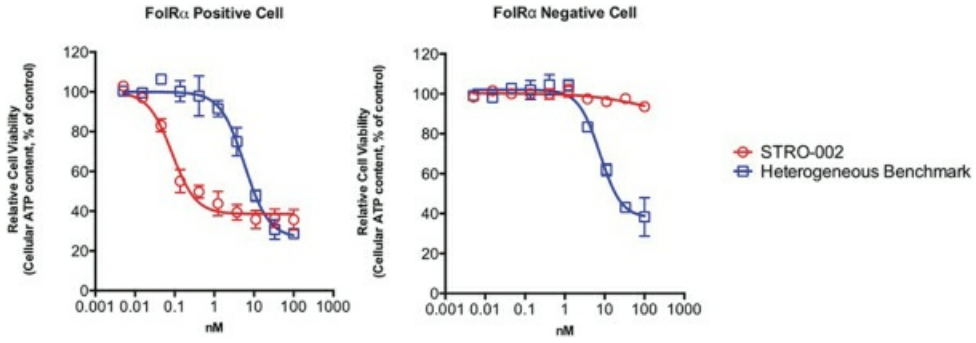
Preclinical Data

STRO-002, in comparison with the benchmark molecule that we created, has demonstrated: enhanced *in vitro* activity on cells expressing FolRa and improved specificity on cells that do not express FolRa; superior inhibition of tumor growth; and greater *in vitro* and *in vivo* linker stability.

STRO-002 has demonstrated potent *in vitro* cell killing activity across multiple ovarian cancer tumor cell lines. Based on these observations, we have used murine tumor models to determine whether STRO-002 also demonstrates cell killing *in vivo*. In these models, human tumor cells are implanted and allowed to grow in mice to subsequently test the activity of anti-cancer agents. Although these murine models do not address safety, they are commonly used to provide experimental proof-of-concept for anti-cancer activity against different tumor types. As shown in the data below, dose-dependent anti-tumor activity was observed in mice implanted with OVCAR3 human ovarian cancer tumor cells. Importantly, this anti-tumor effect was observed in mice bearing large established tumors, with evidence of tumor regression following a single dose of 10 mg/kg STRO-002.

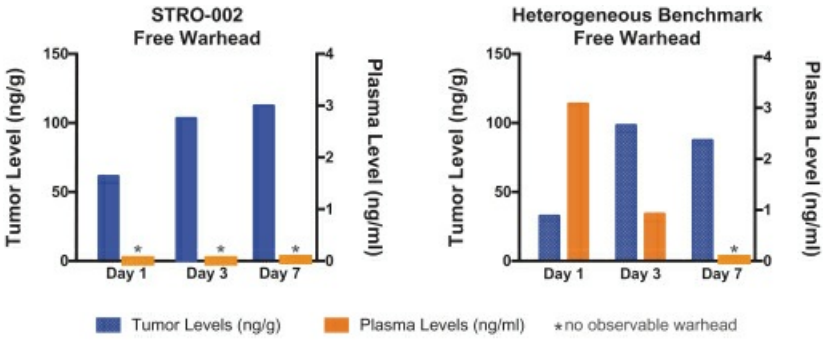


In an effort to better understand the relative activity of our homogeneous STRO-002 molecule we have performed experiments comparing STRO-002 to a benchmark molecule that we created. STRO-002 and the benchmark molecule have comparable DAR and affinity for FolRa expressing cells; however, the benchmark is made using conventional ADC technology and is therefore a heterogeneous mixture. The data below demonstrates STRO-002 has more potent *in vitro* cell killing activity compared to the benchmark molecule when tested on cells expressing FolRa. In contrast, STRO-002 has minimal if any activity on cells that do not express FolR a, while the benchmark molecule kills cells even in the absence of FolRa. We believe that the data demonstrate that the homogeneous nature of STRO-002 drives more efficient tumor cell killing with better tolerability for normal tissues.



We used a human ovarian cancer xenograft model to understand the *in vivo* stability of STRO-002 compared to our benchmark molecule. In this model we tested for free warhead, released from the ADC, in the blood or tumor tissue one, three or seven days after dosing. The data below on the left show that the released, free warhead from STRO-002 is observed in the tumor starting one day after dosing, without evidence of free warhead circulating in the blood at any time point. In contrast, the data on the right shows that free warhead derived from the benchmark molecule can be observed circulating in the blood one day after dosing, which could contribute to unintended toxicities. In other preclinical studies, the hemiasterlin free warhead is cleared rapidly from this circulation. Taken together, we believe that these data demonstrate the stability of STRO-002 *in vivo*, which we believe will contribute to a superior therapeutic index compared to ADCs made using convention technology.

Murine Tumor Model – Free Warhead in Tumor vs. Blood After Dosing



We examined the safety of STRO-002 in an exploratory toxicology study in non-human primates. Hematological toxicity was observed consistent with the known effects of the STRO-002 cytotoxic tubulin inhibitor component. No other drug-related toxicities were observed and importantly, there were no observed ocular effects in the non-human primate study.

Clinical Development Plan

We expect our Phase 1 trial for STRO-002 to be an open-label study that will evaluate STRO-002 as a monotherapy for patients with ovarian and endometrial cancers. The trial will be conducted in two-parts, dose escalation and dose expansion. The primary objectives of the STRO-002 clinical trial will be to determine the safety and tolerability profile, to define the recommended Phase 2 dose level and interval and to evaluate preliminary anti-tumor activity. Our secondary objectives will be to characterize the human pharmacokinetics and additional safety, tolerability and efficacy measures.

We intend to seek to enroll adult patients with advanced and/or refractory ovarian cancer or endometrial cancer, for whom no suitable treatment exists. These patients are considered to have incurable disease and need repeated courses of life-prolonging and palliative treatment. We believe that ovarian cancer patients will be enrolled in a dose escalation cohort, with treatment frequency and duration yet to be determined. If anti-tumor activity is observed during the dose escalation phase, we would then plan to enroll patients into two dose expansion cohorts (ovarian cancer and endometrial cancer).

We anticipate submitting an IND for STRO-002 in the fourth quarter of 2018.

IL-2 Program

Our IL-2 program takes advantage of our XpressCF Platform. Our technology allows us to rapidly incorporate non-natural amino acids in varying numbers and positions, to identify the best cytokine modification for pharmacological activity, pharmacokinetics and safety. Furthermore, our technology enables rapid preclinical development and transition to cGMP manufacturing, ensuring speed to clinic in a promising field. We anticipate submitting an IND for our IL-2 program. We are also pursuing discovery and development of other novel cytokine-based programs, including IL-15.

Additional Discovery Efforts

We are actively researching to identify new ADCs to add to our pipeline. We have four ADC discovery programs ongoing using our XpressCF Platform. Our protein engineering and chemistry efforts are focused on maximizing therapeutic indices, and our technology allows us to rapidly test our therapeutic hypothesis in significantly more product candidates than conventional protein synthesis allows in order to identify the best molecule to advance to the clinic.

Our bispecific antibody drug discovery programs are focused on T cell-engagers. We have two active programs, and we are using our technology to find the optimum protein structure and T cell-engaging properties to maximize safety and efficacy for this promising class of cancer therapeutics.

Collaboration and License Agreements

Celgene Collaboration

In September 2014, we entered into a Collaboration and License Agreement with Celgene, or the 2014 Celgene Agreement, to discover and develop bispecific antibodies and ADCs focused primarily on the field of immuno-oncology, using our proprietary integrated cell-free protein synthesis platform, XpressCF. Under the 2014 Celgene Agreement, we received upfront payments totaling $95.0 million in September 2014, which included an $11.9 million equity investment, and additional payments totaling $60.0 million.

In August 2017, we entered an Amended and Restated Collaboration and License Agreement with Celgene, or the 2017 Celgene Agreement, to refocus our 2014 Celgene Agreement on four programs that are advancing throughout preclinical development, which are:

- *BCMA ADC.* The most advanced product candidate under collaboration is a BCMA ADC product candidate, which has been designated as a development candidate by Celgene for the treatment of multiple myeloma. We believe Celgene currently plans to submit an IND for this product candidate in early 2019. We currently own the development and commercial rights in the United States to this BCMA ADC product candidate; however, assuming it is the first development candidate from our 2017 Celgene Agreement to have an active IND in the United States, Celgene will then automatically own worldwide development and commercialization rights to such product.
- *Bispecific Antibodies*. The other three product candidates subject to our Celgene collaboration are bispecific antibodies, all of which have been designated as development candidates by Celgene. The second most advanced product candidate under the Celgene collaboration is an immuno-oncology bispecific antibody product candidate. We believe Celgene currently plans to submit an IND for this product candidate in the first half of 2019. We currently own the rights to develop and commercialize these product candidates in the United States; however, assuming the second development candidate from our 2017 Celgene Agreement achieves an active IND in the United States, and Celgene makes the required payments to us, then Celgene will automatically own worldwide development and commercialization rights to such second product.

Upon signing of the 2017 Celgene Agreement, we received an option fee payment of $12.5 million in August 2017 and are eligible to receive a second option fee payment of $12.5 million following the first IND clearance, if any, for one of the four programs, if Celgene desires to maintain its option to acquire the

U.S. rights to develop and commercialize a second collaboration program to reach IND status. If Celgene exercises its option to acquire from us U.S. rights to a second collaboration program, it will make an option exercise fee payment to us, the amount of which depends on which program reaches IND status.

We have received and will be eligible to receive financial support for research and development services assigned to us by Celgene, based on an agreed-upon level of full-time equivalent personnel effort and related reimbursement rate.

Under the terms of the 2017 Celgene Agreement, we are entitled to earn development and regulatory contingent payments for each of the four programs under the collaboration, and royalties on sales of any commercial products that may result from the 2017 Celgene Agreement. Additionally, we are eligible to receive a potential future payment for manufacturing activities of $10.0 million. For licensed products for which Celgene holds worldwide rights, we are eligible to receive aggregate milestone and option fee payments of up to $295.0 million for certain licensed products and up to $393.7 million for certain other licensed products under the collaboration, if approved in multiple indications, and, depending on the licensed product, tiered royalties ranging from single digit to low teen percentages on worldwide sales of any commercial products that may result from the 2017 Celgene Agreement. Additionally, for licensed products for which Celgene holds ex-U.S. rights, we will also be eligible to receive pre-commercial contingent payments and tiered royalties ranging from mid to high single digit percentages.

Celgene may terminate the 2017 Celgene Agreement at any time with 120 days' prior written notice. Either we or Celgene has the right to terminate the 2017 Celgene Agreement based on the other party's uncured material breach, challenge of the validity and enforceability of intellectual property, or bankruptcy.

Merck KGaA, Darmstadt, Germany Collaboration

In September 2014, we entered into a License Agreement with Merck KGaA, Darmstadt, Germany, or the MDA Agreement, to develop ADCs for multiple cancer targets, which replaced the Collaboration Agreement we had entered into with Merck KGaA, Darmstadt, Germany in May 2014, or the Collaboration Agreement. The most advanced program in the collaboration is a bispecific ADC drug candidate for which we expect the initiation of IND-enabling studies in 2019.

Upon signing the Collaboration Agreement, we received $10.0 million in an upfront payment. In addition, upon signing the MDA Agreement, we received an additional $10.0 million in an upfront payment and receive financial support for our research and development services based on an agreed-upon level of full-time equivalent personnel effort and related reimbursement rate. As of March 31, 2018, we had received $6.3 million in funding support for research and development services. We anticipate entering into a manufacturing supply agreement with Merck KGaA, Darmstadt, Germany to provide them with product candidate materials for IND-enabling and clinical studies.

We are eligible to receive up to $52.5 million for each product developed under the MDA Agreement, primarily from pre-commercial contingent payments. In addition, we are eligible to receive tiered royalties ranging from low to mid single digit percentages, along with certain additional one-time royalties, on worldwide sales of any commercial products that may result from the MDA Agreement. The MDA Agreement term expires on a product-by-product and country-by-country basis. Upon expiration, Merck KGaA, Darmstadt, Germany will have a fully paid-up, royalty-free, perpetual, and irrevocable non-exclusive license, with the right to grant sublicenses, under certain of our intellectual property rights.

Merck KGaA, Darmstadt, Germany may terminate the MDA Agreement at any time with 90 days' prior written notice or upon our inability to provide Merck KGaA, Darmstadt, Germany access to a specified number of cancer drug targets. Either we or Merck KGaA, Darmstadt, Germany has the right to terminate the MDA Agreement based on the other party's uncured material breach or bankruptcy.

Stanford License

In October 2007, we entered into an Amended and Restated Exclusive Agreement, or the Stanford License, with the Board of Trustees of the Leland Stanford Junior University, or Stanford, that grants us an exclusive license, with the right to sublicense, under the patent rights owned by Stanford covering certain technology rights related to our XpressCF expression system.

Upon initiation of the agreement, we made a payment to Stanford of approximately $83,000, of which a portion was creditable against certain prior patent costs incurred by Stanford, reimbursement of certain out-of-pocket costs incurred by Stanford in patent filing, prosecution and maintenance of approximately $184,000, and issued shares of our common stock to Stanford. We are required to make milestone payments to Stanford of up to approximately $930,000 on the accomplishment of certain development and regulatory milestones, of which $180,000 has been paid through March 31, 2018, with a $750,000 payment due upon first commercial sale of the first licensed product consisting of a molecule or compound covered by the licensed patent rights, or the 14th anniversary of the Stanford License in October 2021. Additionally, we owe Stanford annual license maintenance fees of $75,000, which may be creditable against earned royalties in such year, and are required to reimburse Stanford for ongoing patent-related costs. We are also required to pay to Stanford low single digit royalties on net sales and to share any sublicensing income received related to the licensed technology. We may terminate the agreement at any time upon 30 days' written notice.

SutroVax Investment

In 2013, we and Johnson & Johnson Innovation, through the Johnson & Johnson Development Corporation, provided initial co-funding for a new company called SutroVax, Inc., or SutroVax, with which we have a license agreement. Under the agreement, SutroVax has the right to use the XpressCF Platform to discover and develop vaccine candidates for the treatment or prophylaxis of infectious diseases. The lead program for SutroVax is a broad-spectrum pneumococcal conjugate vaccine. SutroVax is responsible for performing all research and development activities, and we provide technical support and supply XtractCF and other materials to SutroVax.

We retain an ownership interest in SutroVax and are eligible for single digit royalties on net sales of any vaccine candidates. Also, we retain the right to discover and develop vaccines for the treatment or prophylaxis of any disease that is not caused by an infectious pathogen, including cancer.

Manufacturing

We have significant expertise in the production of therapeutic biologics. Our proprietary XpressCF Platform is a cell-free protein synthesis technology that enables rapid and systematic process development, streamlined scale-up and cGMP manufacturing.

Extract and Reagents

We manufacture our cell-free extract, and expect to manufacture related reagents, in our cGMP manufacturing facility in San Carlos, California for our clinical trials and supply commitments. If we are successful in developing an effective strategic relationship with a contract manufacturing organization, or CMO, we would consider supplementing our manufacturing capacity by outsourcing the production of cell-free extract and related reagents to such CMO to cover our needs during product launch and for long-term commercial supply.

Drug Substance and Drug Product

Our process development and manufacturing strategies are tailored to rapidly advance our product candidates and we use a supply chain of established CMOs to ensure successful execution. The production of antibodies will be done by either us or CMOs, depending on our internal cGMP

production capacity. The production of all other necessary elements for the manufacture of our ADC product candidates, and the final manufacture of the ADC drug product, will be handled entirely by CMOs. Our XpressCF Platform has been successfully used for manufacturing several antibodies and requires minimal process optimization to support early clinical phase manufacturing. We utilize industry established production steps for the purification of our antibodies. The CMOs we have selected have strong track records in cGMP manufacturing with expertise in clinical or commercial drug manufacturing for the cytotoxic agent, conjugation and fill-finish of therapeutic biologics. All activities from cell-free extract production to formulated drug product are performed to maintain aggressive timelines and minimize delays.

Competition

The biotechnology and biopharmaceutical industries, and the immuno-oncology subsector, are characterized by rapid evolution of technologies, fierce competition and strong defense of intellectual property. Any product candidates that we successfully develop and commercialize will have to compete with existing therapies and new therapies that may become available in the future. While we believe that our proprietary XpressCF Platform and scientific expertise in the field of biologics and immuno-oncology provide us with competitive advantages, a wide variety of institutions, including large biopharmaceutical companies, specialty biotechnology companies, academic research departments and public and private research institutions, are actively developing potentially competitive products and technologies. We face substantial competition from biotechnology and biopharmaceutical companies developing products in immuno-oncology. Our competitors include larger and better funded biopharmaceutical, biotechnological and therapeutics companies, including companies focused on cancer immunotherapies, such as AstraZeneca PLC, Bristol-Myers Squibb Company, or BMS, GlaxoSmithKline PLC, Merck & Co., Inc., Novartis AG, Pfizer Inc., or Pfizer, Roche Holding Ltd, Sanofi S.A and companies focused on ADCs, such as Pfizer, ImmunoGen, Inc., Seattle Genetics, Inc. and Genentech, Inc., or Genentech, as well as numerous small companies. Moreover, we also compete with current and future therapeutics developed at universities and other research institutions.

If our lead product candidates are approved, they will compete with a range of therapeutic treatments that are either in development or currently marketed. Currently marketed oncology drugs and therapeutics range from ADCs, such as Genentech's Kadcyla, to immune checkpoint inhibitors, such as BMS's Opdivo, to T cell-engager immunotherapies, such as Amgen, Inc.'s Blincyto. In addition, numerous compounds are in clinical development for cancer treatment. With respect to B cell based malignancies, such as multiple myeloma, the most common treatments are chemotherapeutic compounds, radiation therapy, stem cell transplantation and immunomodulating agents. The clinical development pipeline for cancer includes small molecules, antibodies, vaccines, cell therapies and immunotherapies from a variety of companies and institutions.

Many of our competitors, either alone or with strategic partners, have substantially greater financial, technical and human resources than we do. Accordingly, our competitors may be more successful than us in obtaining approval for treatments and achieving widespread market acceptance, rendering our treatments obsolete or non-competitive. Accelerated merger and acquisition activity in the biotechnology and biopharmaceutical industries may result in even more resources being concentrated among a smaller number of our competitors. These companies also compete with us in recruiting and retaining qualified scientific and management personnel, establishing clinical trial sites and patient registration for clinical trials and acquiring technologies complementary to, or necessary for, our programs. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. Our commercial opportunity could be substantially limited in the event that our competitors develop and commercialize products that are more effective, safer, less toxic, more convenient or less expensive than our comparable products. In geographies that are critical to our commercial success, competitors may also

obtain regulatory approvals before us, resulting in our competitors building a strong market position in advance of the entry of our products. We believe the factors determining the success of our programs will be the efficacy, safety and convenience of our product candidates.

Reimbursement

The regulations that govern pricing and reimbursement for new drugs and therapeutic biologics vary widely from country to country. Some countries require approval of the sale price of a drug or therapeutic biologic before it can be marketed. In many countries, the pricing review period begins after marketing approval is granted. In some foreign markets, prescription biopharmaceutical pricing remains subject to continuing governmental control even after initial approval is granted. As a result, a drug company can obtain regulatory approval for a product in a particular country, but then be subject to price regulations that delay commercial launch of that product.

A drug company's ability to commercialize any products successfully will also depend in part on the extent to which coverage and adequate reimbursement for these products and related treatments will be available from government authorities, private health insurers and other organizations. Even if one or more products are successfully brought to the market, these products may not be considered cost-effective, and the amount reimbursed for such products may be insufficient to allow them to be sold on a competitive basis. Increasingly, third-party payors who reimburse patients or healthcare providers, such as government and private insurance plans, are requiring that drug companies provide them with predetermined discounts from list prices, and are seeking to reduce the prices charged or the amounts reimbursed for biopharmaceutical products.

Significant delays can occur in obtaining reimbursement for newly-approved drugs or therapeutic biologics, and coverage may be more limited than the purposes for which the drug or therapeutic biologic is approved by the FDA or similar foreign regulatory authorities. Moreover, eligibility for reimbursement does not imply that any drug or therapeutic biologic will be reimbursed in all cases or at a rate that covers a drug company's costs, including research, development, manufacture, sale and distribution.

Interim reimbursement levels for new drugs or therapeutic biologics, if applicable, may also be insufficient to cover a drug company's costs and may not be made permanent. Reimbursement rates may be based on payments allowed for lower cost drugs or therapeutic biologics that are already reimbursed, may be incorporated into existing payments for other services and may reflect budgetary constraints or imperfections in Medicare data. Net prices for drugs or therapeutic biologics may be reduced by mandatory discounts or rebates required by government healthcare programs or private payors and by any future relaxation of laws that presently restrict imports of drugs or therapeutic biologics from countries where they may be sold at lower prices than in the United States. Further, no uniform policy for coverage and reimbursement exists in the United States. Third-party payors often rely upon Medicare coverage policy and payment limitations in setting their own reimbursement rates, but also have their own methods and approval process apart from Medicare determinations. Therefore coverage and reimbursement can differ significantly from payor to payor.

Intellectual Property

We strive to protect and enhance the proprietary technology, inventions, and improvements that are commercially important to our business, including seeking, maintaining, and defending patent rights, whether developed internally or licensed from third parties. Our policy is to seek to protect our proprietary position by, among other methods, pursuing and obtaining patent protection in the United States and in jurisdictions outside of the United States related to our proprietary technology, inventions, improvements, platforms and product candidates that are important to the development and implementation of our business. Our patent portfolio is intended to cover, but is not limited to, our technology platforms, our product candidates and components thereof, their methods of use and

processes for their manufacture, our proprietary reagents and assays, and any other inventions that are commercially important to our business. We also rely on trade secret protection of our confidential information and know-how relating to our proprietary technology, platforms and product candidates, continuing innovation, and in-licensing opportunities to develop, strengthen, and maintain our proprietary position in our XpressCF Platform and product candidates. We expect to rely on data exclusivity, market exclusivity, patent term adjustment and patent term extensions when available. Our commercial success may depend in part on our ability to obtain and maintain patent and other proprietary protection for our technology, inventions, and improvements; to preserve the confidentiality of our trade secrets; to maintain our licenses to use intellectual property owned or controlled by third parties; to defend and enforce our proprietary rights, including our patents; to defend against and challenge the assertion by third parties of their purported intellectual property rights; and to operate without the unauthorized infringement on the valid and enforceable patents and other proprietary rights of third parties.

We believe that we have a strong global intellectual property position and substantial know-how and trade secrets relating to our XpressCF platform technology, platform and product candidates. Our patent portfolio as of March 31, 2018 contained 10 U.S. issued patents and nine patents issued in ex-U.S. jurisdictions including Europe, China, Japan, Australia and Singapore and 25 U.S. pending applications as well as 68 patent applications pending in ex-U.S. jurisdictions including Europe, China, Japan, Australia and Singapore owned solely by us. These patents and patent applications include claims relating to:

- bacterial strains, and extracts prepared therefrom, comprising an engineered Release Factor 1 protein, which facilitates incorporation of non-natural amino acids into proteins;
- bacterial strains, and extracts prepared therefrom, comprising combinations of chaperone proteins, which facilitate expression of complex eukaryotic proteins in bacterial extracts;
- antibodies targeting receptors of interest, including CD74 and FolRa;
- ADCs targeting receptors of interest, including CD74 and FolRa;
- hemiasterlin, both as a cytotoxin and as a linker-warhead, which is used in our STRO-0002 product candidate; and
- para-azidomethylphenylalanine, or pAMF, and proteins comprising pAMF, our workhorse non-natural amino acid which is primarily used when we conjugate molecules to proteins produced with our XpressCF Platform.

Our issued patents, and any patents that may issue from our pending patent applications, in our solely owned patent portfolio are expected to expire between January 2030 and March 2039, absent any patent term adjustments or extensions.

In addition, we have exclusively licensed the following patent portfolio from Stanford: 15 U.S. issued patents and 42 patents issued in ex-U.S. jurisdictions including Europe, China, Canada, India, Australia, South Korea, Eurasia and Singapore. This patent portfolio includes claims relating to methods related to *in vitro* protein synthesis that we use in our XpressCF Platform when discovering, developing and manufacturing our product candidates.

Patents in our patent portfolio licensed from Stanford are expected to expire between March 2019 and January 2028, absent any patent term adjustments or extensions.

As for the XpressCF Platform, product candidates and processes we develop and commercialize, in the normal course of business, we intend to pursue, where appropriate, patent protection or trade secret protection relating to compositions, methods of manufacture, assay methods, methods of use, treatment of indications, dosing and formulations. We may also pursue patent protection with respect to product development processes and technology.

The following table describes the material patents and patent applications owned or licensed by us.

Patent Relevance	Ownership	Type of Patent Protection	Expiration or Anticipated Expiration (absent patent term extension or adjustment)	Pending Jurisdictions	Issued Jurisdictions
XpressCF Platform	Inlicensed from Stanford	Utility	2023	None	US, AU, CA, EP, JP
XpressCF Platform	Owned by Sutro	Utility	2033	US, CA, CN, EP, IL, IN, JP, KR,	US, AU, SG
XpressCF Platform	Owned by Sutro	Utility	2034	US, AU, CA, CN, EP, HK, IL, IN, JP, KR, SG	None
XpressCF Platform	Owned by Sutro	Utility	2034	US	EP
XpressCF Platform	Owned by Sutro	Utility	2035	None	US, EP
STRO-001 and STRO-002	Owned by Sutro	Utility	2033	US, AU, BR, CA, CN, EP, JP, IN, HK, KR	US, SG
STRO-001 and STRO-002	Owned by Sutro	Utility	2033	US, AU, BR, CA, CN, EP, HK, IL, IN, JP, KR	US, SG
STRO-001	Owned by Sutro	Utility	2035	US, EP	None
STRO-001	Owned by Sutro	Utility	2037	PCT	None
STRO-001	Owned by Sutro	Utility	2037	PCT	None
STRO-001	Owned by Sutro	Provisional	2038	US	None
STRO-002	Owned by Sutro	Utility	2037	PCT	None
STRO-002	Owned by Sutro	Provisional	2038	US	None
STRO-002	Owned by Sutro	Utility	2036	US, AU, BR, CA, CN, EP, IL, IN, JP, KR, SG	None

We continually assess and refine our intellectual property strategy as we develop new platform technologies and product candidates. To that end, we are prepared to file additional patent applications if our intellectual property strategy requires such filings, or where we seek to adapt to competition or seize business opportunities. Further, we are prepared to file patent applications, as we consider appropriate under the circumstances, relating to the new technologies that we develop. In addition to filing and prosecuting patent applications in the United States, we often file counterpart patent applications in the European Union and in additional countries where we believe such foreign filing is

likely to be beneficial, including but not limited to any or all of Australia, Brazil, Canada, China, Hong Kong, India, Israel, Japan, Mexico, New Zealand, Singapore and South Korea.

The term of individual patents depends upon the laws of the countries in which they are obtained. In most countries in which we file, the patent term is 20 years from the earliest date of filing of a non-provisional patent application. However, the term of United States patents may be extended for delays incurred due to compliance with the FDA requirements or by delays encountered during prosecution that are caused by the United States Patent and Trademark Office, or the USPTO. For example, the Hatch-Waxman Act permits a patent term extension for FDA-approved drugs of up to five years beyond the expiration of the patent. The length of the patent term extension is related to the length of time the drug is under regulatory review. Patent extension cannot extend the remaining term of a patent beyond a total of 14 years from the date of product approval, and only one patent applicable to an approved drug may be extended. Similar provisions are available in Europe and other jurisdictions to extend the term of a patent that covers an approved drug. In the future, if and when our biopharmaceutical product candidates receive FDA approval, we expect to apply for patent term extensions on patents covering those product candidates. We intend to seek patent term extensions to any of our issued patents in any jurisdiction where these are available; however there is no guarantee that the applicable authorities, including the USPTO and FDA, will agree with our assessment of whether such extensions should be granted, and even if granted, the length of such extensions. Our currently issued patents will likely expire on dates ranging from 2030 to 2034, unless we receive patent term extension or patent term adjustment, or both. If patents are issued on our pending patent applications, the resulting patents are projected to expire on dates ranging from 2033 to 2039, unless we receive patent term extension or patent term adjustment, or both. However, the actual protection afforded by a patent varies on a product-by-product basis, from country-to-country, and depends upon many factors, including the type of patent, the scope of its coverage, the availability of regulatory-related extensions, the availability of legal remedies in a particular country and the validity and enforceability of the patent.

The patent positions of companies like ours are generally uncertain and involve complex legal and factual questions. No consistent policy regarding the scope of claims allowable in patents in the field of immunotherapy has emerged in the United States. The patent situation outside of the United States is even more uncertain. Changes in the patent laws and rules, either by legislation, judicial decisions, or regulatory interpretation in the United States and other countries may diminish our ability to protect our inventions and enforce our intellectual property rights, and more generally could affect the value of our intellectual property. In particular, our ability to stop third parties from making, using, selling, offering to sell, or importing any of our patented inventions, either directly or indirectly, will depend in part on our success in obtaining, defending, and enforcing patent claims that cover our technology, inventions, and improvements. With respect to both licensed and company-owned intellectual property, we cannot be sure that patents will be granted with respect to any of our pending patent applications or with respect to any patent applications filed by us in the future, nor can we be sure that any of our existing patents or any patents that may be granted to us in the future will be commercially useful in protecting our platforms and product candidates and the methods used to manufacture those platforms and product candidates. Moreover, even our issued patents do not guarantee us the right to practice our technology in relation to the commercialization of our platform’s product candidates. However, the area of patent and other intellectual property rights in biotechnology is an evolving one with many risks and uncertainties, and third parties may have blocking patents that could be used to prevent us from commercializing our patented XpressCF technology, platforms and product candidates and practicing our proprietary technology. Our issued patents and those that may issue in the future may be challenged, invalidated, or circumvented, which could limit our ability to stop competitors from marketing related platforms or product candidates or limit the length of the term of patent protection that we may have for our XpressCF technology, platforms and product candidates. In addition, the rights granted under any issued patents may not provide us with protection or competitive advantages against competitors with similar technology. Furthermore, our competitors may independently develop

similar technologies. For these reasons, we may have competition for our XpressCF technology, platforms and product candidates. Moreover, because of the extensive time required for development, testing and regulatory review of a potential product, it is possible that, before any particular product candidate can be commercialized, any related patent may expire or remain in force for only a short period following commercialization, thereby reducing any advantage of the patent. For this and more comprehensive risks related to our proprietary technology, inventions, improvements, platforms and product candidates, please see the section entitled "Risk Factors—Risks Related to Intellectual Property."

We intend to file applications for trademark registrations in connection with our product candidates in various jurisdictions, including the United States. We have filed for trademark protection of the Sutro Biopharma mark, the XpressCF mark and the XpressCF+ mark with the USPTO. XpressCF refers to our cell-free protein synthesis technology as a whole, and XpressCF+ refers specifically to cell-free protein synthesis incorporating one or more non-natural amino acids. The Sutro Biopharma mark was registered by the USPTO in 2014 and the XpressCF and XpressCF+ marks were registered by the USPTO in 2017.

We also rely on trade secret protection for our confidential and proprietary information. Although we take steps to protect our confidential and proprietary information as trade secrets, including through contractual means with our employees and consultants, 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. It is our policy to require our employees, consultants, outside scientific collaborators, sponsored researchers and other advisors to execute confidentiality agreements upon the commencement of employment or consulting relationships with us. 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 is to be kept confidential and not disclosed to third parties except in specific circumstances. In the case of employees, the agreements provide that all inventions conceived by the individual, and which are related to our current or planned business or research and development or made during normal working hours, on our premises or using our equipment or proprietary information, are our exclusive property. In many cases our confidentiality and other agreements with consultants, outside scientific collaborators, sponsored researchers and other advisors require them to assign or grant us licenses to inventions they invent as a result of the work or services they render under such agreements or grant us an option to negotiate a license to use such inventions.

We also seek to preserve the integrity and confidentiality of our proprietary technology and processes by maintaining physical security of our premises and physical and electronic security of our information technology systems. Although we have confidence in these individuals, organizations, and systems, agreements or security measures may be breached and we may not have adequate remedies for any breach. To the extent that our employees, contractors, consultants, collaborators, and advisors 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.

Government Regulation

Government authorities in the United States, at the federal, state and local level, and in other countries and jurisdictions extensively regulate, among other things, the research, development, testing, manufacture, quality control, approval, packaging, storage, recordkeeping, labeling, advertising, promotion, distribution, marketing, post-approval monitoring and reporting, and import and export of pharmaceutical products. The processes for obtaining regulatory approvals in the United States and in foreign countries and jurisdictions, along with subsequent compliance with applicable

statutes and regulations and other regulatory authorities, require the expenditure of substantial time and financial resources.

FDA Approval Process

In the United States, pharmaceutical products are subject to extensive regulation by the FDA. The Federal Food, Drug, and Cosmetic Act, or the FDC Act, and other federal and state statutes and regulations, govern, among other things, the research, development, testing, manufacture, storage, recordkeeping, approval, labeling, promotion and marketing, distribution, post-approval monitoring and reporting, sampling, and import and export of pharmaceutical products. Biological products used for the prevention, treatment, or cure of a disease or condition of a human being are subject to regulation under the FDC Act, except the section of the FDC Act which governs the approval of new drug applications, or NDAs. Biological products are approved for marketing under provisions of the Public Health Service Act, or PHS Act, via a Biologics License Application, or BLA. However, the application process and requirements for approval of BLAs are very similar to those for NDAs, and biologics are associated with similar approval risks and costs as drugs. Failure to comply with applicable U.S. requirements may subject a company to a variety of administrative or judicial sanctions, such as clinical hold, FDA refusal to approve pending BLAs, warning or untitled letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, civil penalties, and criminal prosecution.

Biological product development for a new product or certain changes to an approved product in the United States typically involves preclinical laboratory and animal tests, the submission to the FDA of an investigational new drug application, or IND, which must become effective before clinical testing may commence, and adequate and well-controlled clinical trials to establish the safety and effectiveness of the biologic for each indication for which FDA approval is sought. Satisfaction of FDA pre-market approval requirements typically takes many years and the actual time required may vary substantially based upon the type, complexity, and novelty of the product or disease.

Preclinical tests include laboratory evaluation of product chemistry, formulation, and toxicity, as well as animal trials to assess the characteristics and potential safety and efficacy of the product. The conduct of the preclinical tests must comply with federal regulations and requirements, including good laboratory practices. The results of preclinical testing are submitted to the FDA as part of an IND along with other information, including information about product chemistry, manufacturing and controls, and a proposed clinical trial protocol. Long-term preclinical tests, such as animal tests of reproductive toxicity and carcinogenicity, may continue after the IND is submitted. A 30-day waiting period after the submission of each IND is required prior to the commencement of clinical testing in humans. If the FDA has neither commented on nor questioned the IND within this 30-day period, the clinical trial proposed in the IND may begin. Clinical trials involve the administration of the investigational biologic to healthy volunteers or patients under the supervision of a qualified investigator. Clinical trials must be conducted: (i) in compliance with federal regulations; (ii) in compliance with good clinical practice, or GCP, an international standard meant to protect the rights and health of patients and to define the roles of clinical trial sponsors, administrators, and monitors; as well as (iii) under protocols detailing the objectives of the trial, the parameters to be used in monitoring safety, and the effectiveness criteria to be evaluated. Each protocol involving testing on U.S. patients and subsequent protocol amendments must be submitted to the FDA as part of the IND.

The FDA may order the temporary, or permanent, discontinuation of a clinical trial at any time, or impose other sanctions, if it believes that the clinical trial either is not being conducted in accordance with FDA requirements or presents an unacceptable risk to the clinical trial patients. The trial protocol and informed consent information for patients in clinical trials must also be submitted to an institutional review board, or IRB, for approval. An IRB may also require the clinical trial at the site to be halted,

either temporarily or permanently, for failure to comply with the IRB's requirements, or may impose other conditions.

Clinical trials to support BLAs for marketing approval are typically conducted in three sequential phases, but the phases may overlap. In Phase 1, the initial introduction of the biologic into healthy human subjects or patients, the product is tested to assess metabolism, pharmacokinetics, pharmacological actions, side effects associated with increasing doses, and, if possible, early evidence on effectiveness. In oncology clinical trials, efficacy endpoints are also often explored in Phase 1. Phase 2 usually involves trials in a limited patient population to determine the effectiveness of the drug or biologic for a particular indication, dosage tolerance, and optimum dosage, and to identify common adverse effects and safety risks. If a compound demonstrates evidence of effectiveness and an acceptable safety profile in Phase 2 evaluations, Phase 3 trials are undertaken to obtain the additional information about clinical efficacy and safety in a larger number of patients, typically at geographically dispersed clinical trial sites, to permit the FDA to evaluate the overall benefit-risk relationship of the drug or biologic and to provide adequate information for the labeling of the product. In some instances, trial phases may be truncated or combined into one or more combined-phase or adaptive design trials. In most cases, the FDA requires two adequate and well-controlled Phase 3 clinical trials to demonstrate the efficacy of the biologic. A single Phase 3 trial with other confirmatory evidence may be sufficient in certain oncological conditions where the trial is a large multicenter trial demonstrating internal consistency and a statistically very persuasive finding of a clinically meaningful effect on mortality, irreversible morbidity or prevention of a disease with a potentially serious outcome and confirmation of the result in a second trial would be practically or ethically impossible.

The manufacturer of an investigational drug in a Phase 2 or 3 clinical trial for a serious or life-threatening disease is required to make available, such as by posting on its website, its policy on evaluating and responding to requests for expanded access.

After completion of the required clinical testing, a BLA is prepared and submitted to the FDA. FDA approval of the BLA is required before marketing of the product may begin in the United States. The BLA must include the results of all preclinical, clinical, and other testing and a compilation of data relating to the product's pharmacology, chemistry, manufacture, and controls. The cost of preparing and submitting a BLA is substantial. The submission of most BLAs is additionally subject to a substantial application user fee, currently exceeding $2,421,000 for Fiscal Year 2018. The applicant under an approved BLA is also subject to an annual program fee, currently exceeding $304,000 per prescription drug product for Fiscal Year 2018. Beginning in Fiscal Year 2018, this annual program fee replaces the annual product and establishment fees. These fees are typically increased annually. The FDA has 60 days from its receipt of a BLA to determine whether the application will be accepted for filing based on the agency's threshold determination that it is sufficiently complete to permit substantive review. Once the submission is accepted for filing, the FDA begins an in-depth review. The FDA has agreed to certain performance goals in the review of BLAs. Most such applications for standard review biologic products are reviewed within 10 months of the date the FDA files the BLA; most applications for priority review biologics are reviewed within six months of the date the FDA files the BLA. Priority review can be applied to a biologic that the FDA determines has the potential to treat a serious or life-threatening condition and, if approved, would be a significant improvement in safety or effectiveness compared to available therapies. The review process for both standard and priority review may be extended by the FDA for three additional months to consider certain late-submitted information, or information intended to clarify information already provided in the submission.

The FDA may also refer applications for novel biologic products, or biologic products that present difficult questions of safety or efficacy, to an advisory committee—typically a panel that includes clinicians and other experts—for review, evaluation, and a recommendation as to whether the application should be approved. The FDA is not bound by the recommendation of an advisory

committee, but it generally follows such recommendations. Before approving a BLA, the FDA will typically inspect one or more clinical sites to assure compliance with GCP. Additionally, the FDA will inspect the facility or the facilities at which the biologic product is manufactured. The FDA will not approve the product unless compliance with current Good Manufacturing Practices, or cGMPs, is satisfactory and the BLA contains data that provide substantial evidence that the biologic is safe, pure, potent and effective in the indication studied.

After the FDA evaluates the BLA and the manufacturing facilities, it issues either an approval letter or a complete response letter. A complete response letter generally outlines the deficiencies in the submission and may require substantial additional testing, or information, in order for the FDA to reconsider the application. If, or when, those deficiencies have been addressed to the FDA's satisfaction in a resubmission of the BLA, the FDA will issue an approval letter. The FDA has committed to reviewing such resubmissions in two or six months depending on the type of information included. An approval letter authorizes commercial marketing of the biologic with specific prescribing information for specific indications. As a condition of BLA approval, the FDA may require a risk evaluation and mitigation strategy, or REMS, to help ensure that the benefits of the biologic outweigh the potential risks. REMS can include medication guides, communication plans for healthcare professionals, and elements to assure safe use, or ETASU. ETASU can include, but are not limited to, special training or certification for prescribing or dispensing, dispensing only under certain circumstances, special monitoring, and the use of patient registries. The requirement for a REMS can materially affect the potential market and profitability of the product. Moreover, product approval may require substantial post-approval testing and surveillance to monitor the product's safety or efficacy.

Once granted, product approvals may be withdrawn if compliance with regulatory standards is not maintained or problems are identified following initial marketing. Changes to some of the conditions established in an approved application, including changes in indications, labeling, or manufacturing processes or facilities, require submission and FDA approval of a new BLA or BLA supplement before the change can be implemented. A BLA supplement for a new indication typically requires clinical data similar to that in the original application, and the FDA uses the same procedures and actions in reviewing BLA supplements as it does in reviewing BLAs.

Fast Track Designation and Accelerated Approval

The FDA is required to facilitate the development, and expedite the review, of biologics that are intended for the treatment of a serious or life-threatening disease or condition for which there is no effective treatment and which demonstrate the potential to address unmet medical needs for the condition. Under the fast track program, the sponsor of a new biologic candidate may request that the FDA designate the candidate for a specific indication as a fast track biologic concurrent with, or after, the filing of the IND for the candidate. The FDA must determine if the biologic candidate qualifies for fast track designation within 60 days of receipt of the sponsor's request. Under the fast track program and FDA's accelerated approval regulations, the FDA may approve a biologic for a serious or life-threatening illness that provides meaningful therapeutic benefit to patients over existing treatments based upon 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.

In clinical trials, a surrogate endpoint is a measurement of laboratory or clinical signs of a disease or condition that substitutes for a direct measurement of how a patient feels, functions, or survives. Surrogate endpoints can often be measured more easily or more rapidly than clinical endpoints. A biologic candidate approved on this basis is subject to rigorous post-marketing compliance requirements, including the completion of Phase 4 or post-approval clinical trials to confirm the effect on the clinical endpoint. Failure to conduct required post-approval trials, or confirm a clinical benefit

during post-marketing trials, will allow the FDA to withdraw the biologic from the market on an expedited basis. All promotional materials for biologic candidates approved under accelerated regulations are subject to prior review by the FDA.

In addition to other benefits such as the ability to use surrogate endpoints and engage in more frequent interactions with the FDA, the FDA may initiate review of sections of a fast track product's BLA before the application is complete. This rolling review is available if the applicant provides, and the FDA approves, a schedule for the submission of the remaining information and the applicant pays applicable user fees. However, the FDA's time period goal for reviewing an application does not begin until the last section of the BLA is submitted. Additionally, the fast track designation may be withdrawn by the FDA if the FDA believes that the designation is no longer supported by data emerging in the clinical trial process.

Orphan Drug Designation

Under the Orphan Drug Act, the FDA may grant orphan drug designation to biological products intended to treat a rare disease or condition—generally a disease or condition that affects fewer than 200,000 individuals in the United States, or if it affects more than 200,000 individuals in the United States, there is no reasonable expectation that the cost of developing and making a product available in the United States for such disease or condition will be recovered from sales of the product.

Orphan drug designation must be requested before submitting a BLA. After the FDA grants orphan drug designation, the generic identity of the biological product and its potential orphan use are disclosed publicly by the FDA. Orphan drug designation does not convey any advantage in, or shorten the duration of, the regulatory review and approval process. The first BLA applicant to receive FDA approval for a product with particular principal molecular structural features to treat a particular disease with FDA orphan drug designation is entitled to a seven-year exclusive marketing period in the United States for that product for that indication. During the seven-year exclusivity period, the FDA may not approve any other applications to market a biological product containing the same active moiety for the same disease, except in limited circumstances, such as a showing of clinical superiority to the product with orphan drug exclusivity. A product is clinically superior if it is safer, more effective or makes a major contribution to patient care. Orphan drug exclusivity does not prevent the FDA from approving a different drug or biological product for the same disease or condition, or the same biological product 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 user fee.

Disclosure of Clinical Trial Information

Sponsors of clinical trials of FDA-regulated products, including biological products, are required to register and disclose certain clinical trial information. Information related to the product, patient population, phase of investigation, trial sites and investigators, and other aspects of the clinical trial is then made public as part of the registration. Sponsors are also obligated to discuss the results of their clinical trials after completion. Disclosure of the results of these trials can be delayed in certain circumstances for up to two years after the date of completion of the trial. Competitors may use this publicly available information to gain knowledge regarding the progress of development programs.

Pediatric Information

Under the Pediatric Research Equity Act, or PREA, BLAs or supplements to BLAs must contain data to assess the safety and effectiveness of the biological product for the claimed indications in all relevant pediatric subpopulations and to support dosing and administration for each pediatric subpopulation for which the biological product is safe and effective. The FDA may grant full or partial waivers, or deferrals, for submission of data. Unless otherwise required by regulation, PREA does not apply to any biological product for an indication for which orphan designation has been granted, except

a product with a new active ingredient that is molecularly targeted cancer product intended for the treatment of an adult cancer and directed at a molecular target determined by FDA to be substantially relevant to the growth or progression of a pediatric cancer that is subject to an NDA or BLA submitted on or after August 18, 2020.

Additional Controls for Biologics

To help reduce the increased risk of the introduction of adventitious agents, the PHS Act emphasizes the importance of manufacturing controls for products whose attributes cannot be precisely defined. The PHS Act also provides authority to the FDA to immediately suspend licenses in situations where there exists a danger to public health, to prepare or procure products in the event of shortages and critical public health needs, and to authorize the creation and enforcement of regulations to prevent the introduction or spread of communicable diseases in the United States and between states.

After a BLA is approved, the product may also be subject to official lot release as a condition of approval. As part of the manufacturing process, the manufacturer is required to perform certain tests on each lot of the product before it is released for distribution. If the product is subject to official release by the FDA, the manufacturer submits samples of each lot of product to the FDA together with a release protocol showing a summary of the history of manufacture of the lot and the results of all of the manufacturer's tests performed on the lot. The FDA may also perform certain confirmatory tests on lots of some products, such as viral vaccines, before releasing the lots for distribution by the manufacturer. In addition, the FDA conducts laboratory research related to the regulatory standards on the safety, purity, potency, and effectiveness of biological products. As with drugs, after approval of biologics, manufacturers must address any safety issues that arise, are subject to recalls or a halt in manufacturing, and are subject to periodic inspection after approval.

Post-Approval Requirements

Once a BLA is approved, a product will be subject to certain post-approval requirements. For instance, the FDA closely regulates the post-approval marketing and promotion of biologics, including standards and regulations for direct-to-consumer advertising, off-label promotion, industry-sponsored scientific and educational activities and promotional activities involving the internet. Biologics may be marketed only for the approved indications and in accordance with the provisions of the approved labeling.

Adverse event reporting and submission of periodic reports is required following FDA approval of a BLA. The FDA also may require post-marketing testing, known as Phase 4 testing, REMS, and surveillance to monitor the effects of an approved product, or the FDA may place conditions on an approval that could restrict the distribution or use of the product. In addition, quality control, biological product manufacture, packaging, and labeling procedures must continue to conform to cGMPs after approval. Biologic manufacturers and certain of their subcontractors are required to register their establishments with the FDA and certain state agencies. Registration with the FDA subjects entities to periodic unannounced inspections by the FDA, during which the agency inspects manufacturing facilities to assess compliance with cGMPs. Accordingly, manufacturers must continue to expend time, money, and effort in the areas of production and quality-control to maintain compliance with cGMPs. Regulatory authorities may withdraw product approvals or request product recalls if a company fails to comply with regulatory standards, if it encounters problems following initial marketing, or if previously unrecognized problems are subsequently discovered.

FDA Regulation of Companion Diagnostics

A biologic product may rely upon an *in vitro* companion diagnostics for use in selecting the patients that will respond to a therapy. If an *in vitro* diagnostic is essential to the safe and effective use of the

therapeutic product, then the FDA generally will require approval or clearance of the diagnostic at the same time that FDA approves the therapeutic product.

Pursuing FDA approval of an *in vitro* companion diagnostic would require a pre-market approval, or PMA, for that diagnostic. Based on a final FDA guidance document, and the FDA's past treatment of companion diagnostics, the FDA will likely require PMA approval of an *in vitro* companion diagnostics to identify patient populations suitable for a cancer therapy. The review of these *in vitro* companion diagnostics involves coordination of review by the FDA's Center for Biologics Evaluation and Research and by the FDA's Center for Devices and Radiological Health. Approval of a companion diagnostic is generally required at the time of new drug approval.

The PMA process, including the gathering of clinical and nonclinical data and the submission to and review by the FDA, can take several years or longer. The applicant must prepare and provide the FDA with reasonable assurance of the device's safety and effectiveness, including information about the device and its components regarding, among other things, device design, manufacturing and labeling. PMA applications are subject to an application fee, which exceeds $310,000 for most PMAs for Fiscal Year 2018. In addition, PMAs for devices must generally include the results from extensive preclinical and adequate and well-controlled clinical trials to establish the safety and effectiveness of the device for each indication for which FDA approval is sought. In particular, for a diagnostic, the applicant must demonstrate that the diagnostic produces reproducible results between multiple users at multiple laboratories. As part of the PMA review, the FDA will typically inspect the manufacturer's facilities for compliance with the Quality System Regulation, or QSR, which imposes elaborate testing, control, documentation and other quality assurance requirements.

PMA approval is not guaranteed, and the FDA may ultimately respond to a PMA submission with a not approvable determination based on deficiencies in the application and require additional clinical trial or other data that may be expensive and time consuming to generate and that can substantially delay or prevent approval. If the FDA concludes that the applicable criteria have been met, the FDA will issue a PMA for the approved indications, which can be more limited than those originally sought by the applicant. The PMA can include post-approval conditions that the FDA believes necessary to ensure the safety and effectiveness of the device, including, among other things, restrictions on labeling, promotion, sale and distribution.

After a device is placed on the market, it remains subject to significant regulatory requirements. Medical devices may be marketed only for the uses and indications for which they are cleared or approved. Device manufacturers must also register with FDA and list their devices. A medical device manufacturer's manufacturing processes are required to comply with the applicable portions of the QSR, which cover the methods and documentation of the design, testing, production, processes, controls, quality assurance, labeling, packaging and shipping of medical devices. Domestic facility records and manufacturing processes are subject to periodic inspections by the FDA.

Failure to comply with applicable regulatory requirements can result in enforcement action by the FDA, which may include any of the following sanctions: warning or untitled letters, fines, injunctions, civil or criminal penalties, recall or seizure of current or future products, operating restrictions, partial suspension or total shutdown of production, denial of submissions for new products, or withdrawal of PMA approvals.

Other Healthcare Laws

In addition to FDA restrictions on marketing of pharmaceutical products, several other types of state and federal laws have been applied to restrict certain general business and marketing practices in the pharmaceutical industry in recent years. These laws include anti-kickback statutes, false claims statutes and other healthcare laws and regulations.

The federal Anti-Kickback Statute prohibits, among other things, knowingly and willfully offering, paying, soliciting or receiving remuneration to induce, or in return for, purchasing, leasing, ordering or arranging for the purchase, lease or order of any healthcare item or service reimbursable under Medicare, Medicaid, or other federally financed healthcare programs. The Patient Protection and Affordable Care Act as amended by the Health Care and Education Reconciliation Act, collectively, the ACA, amended the intent element of the federal statute so that a person or entity no longer needs to have actual knowledge of the statute or specific intent to violate it in order to commit a violation. This statute has been interpreted to apply to arrangements between pharmaceutical manufacturers on the one hand and prescribers, purchasers and formulary managers on the other. Although there are a number of statutory exceptions and regulatory safe harbors protecting certain common activities from prosecution or other regulatory sanctions, the exceptions and safe harbors are drawn narrowly, and practices that involve remuneration intended to induce prescribing, purchases or recommendations may be subject to scrutiny if they do not qualify for an exception or safe harbor.

Federal civil and criminal false claims laws, including the federal civil False Claims Act, prohibit any person or entity from knowingly presenting, or causing to be presented, a false claim for payment to the federal government, or knowingly making, or causing to be made, a false statement to have a false claim paid. This includes claims made to programs where the federal government reimburses, such as Medicaid, as well as programs where the federal government is a direct purchaser, such as when it purchases off the Federal Supply Schedule. Recently, several pharmaceutical and other healthcare companies have been prosecuted under these laws for allegedly inflating drug prices they report to pricing services, which in turn were used by the government to set Medicare and Medicaid reimbursement rates, and for allegedly providing free product to customers with the expectation that the customers would bill federal programs for the product. In addition, certain marketing practices, including off-label promotion, may also violate false claims laws. Additionally, PPACA amended the federal Anti-Kickback Statute such that a violation of that statute can serve as a basis for liability under the federal False Claims Act. The majority of states also have statutes or regulations similar to the federal Anti-Kickback Statute and False Claims Act, which apply to items and services reimbursed under Medicaid and other state programs, or, in several states, apply regardless of the payor.

Other federal statutes pertaining to healthcare fraud and abuse include the civil monetary penalties statute, which prohibits, among other things, the offer or payment of remuneration to a Medicaid or Medicare beneficiary that the offerer or payor knows or should know is likely to influence the beneficiary to order a receive a reimbursable item or service from a particular supplier, and the additional federal criminal statutes created by the Health Insurance Portability and Accountability Act of 1996, or HIPAA, which prohibits, among other things, knowingly and willfully executing or attempting to execute a scheme to defraud any healthcare benefit program or obtain by means of false or fraudulent pretenses, representations or promises any money or property owned by or under the control of any healthcare benefit program in connection with the delivery of or payment for healthcare benefits, items or services.

In addition, HIPAA, as amended by HITECH, imposes obligations on certain healthcare providers, health plans, and healthcare clearinghouses, known as covered entities, as well as their business associates that perform certain services involving the storage, use or disclosure of individually identifiable health information, including mandatory contractual terms, with respect to safeguarding the privacy, security, and transmission of individually identifiable health information, and require notification to affected individuals and regulatory authorities of certain breaches of security of individually identifiable health information.

Further, pursuant to PPACA, the Centers for Medicare & Medicaid Services, or CMS, has issued a final rule that requires manufacturers of prescription drugs to collect and report information on certain payments or transfers of value to physicians and teaching hospitals, as well as investment interests

held by physicians and their immediate family members. The first reports were due in 2014 and must be submitted on an annual basis. The reported data is made available in searchable form on a public website on an annual basis.

In addition, several states now require prescription drug companies to report certain expenses relating to the marketing and promotion of drug products and to report gifts and payments to individual healthcare practitioners in these states. Other states prohibit various marketing-related activities, such as the provision of certain kinds of gifts or meals. Still other states require the posting of information relating to clinical studies and their outcomes. Some states require the reporting of certain pricing information, including information pertaining to and justifying price increases, or prohibit prescription drug price gouging. In addition, states such as California, Connecticut, Nevada, and Massachusetts require pharmaceutical companies to implement compliance programs and/or marketing codes. Several additional states are considering similar proposals. Certain states and local jurisdictions also require the registration of pharmaceutical sales representatives. Compliance with these laws is difficult and time consuming, and companies that do not comply with these state laws face civil penalties.

Efforts to ensure that business arrangements with third parties comply with applicable healthcare laws and regulations involve substantial costs. If a drug company's operations are found to be in violation of any such requirements, it may be subject to significant penalties, including civil, criminal and administrative penalties, damages, fines, disgorgement, imprisonment, the curtailment or restructuring of its operations, loss of eligibility to obtain approvals from the FDA, exclusion from participation in government contracting, healthcare reimbursement or other government programs, including Medicare and Medicaid, integrity oversight and reporting obligations and reputational harm. Although effective compliance programs can mitigate the risk of investigation and prosecution for violations of these laws, these risks cannot be entirely eliminated. Any action for an alleged or suspected violation can cause a drug company to incur significant legal expenses and divert management's attention from the operation of the business, even if such action is successfully defended.

U.S. Healthcare Reform

In the United States there have been, and continue to be, proposals by the federal government, state governments, regulators and third-party payors to control or manage the increased costs of health care and, more generally, to reform the U.S. healthcare system. For example, in March 2010, the ACA was enacted, which substantially changed the way healthcare is financed by both governmental and private insurers, and significantly impacts the U.S. pharmaceutical industry. The ACA, among other things, (i) subjected therapeutic biologics to potential competition by lower-cost biosimilars by creating a licensure framework for follow-on biologic products, (ii) proscribed a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for drugs and therapeutic biologics that are inhaled, infused, instilled, implanted or injected, (iii) increased the minimum Medicaid rebates owed by manufacturers under the Medicaid Drug Rebate Program and extended the rebate program to individuals enrolled in Medicaid managed care organizations, (iv) established annual fees and taxes on manufacturers of certain branded prescription drugs and therapeutic biologics, (v) established a new Medicare Part D coverage gap discount program, in which manufacturers must agree to offer 50% point-of-sale discounts off negotiated prices of applicable brand drugs and therapeutic biologics to eligible beneficiaries during their coverage gap period, as a condition for the manufacturer's outpatient drugs and therapeutic biologics to be covered under Medicare Part D, (vi) expanded eligibility criteria for Medicaid programs by, among other things, allowing states to offer Medicaid coverage to additional individuals and by adding new mandatory eligibility categories for individuals with income at or below 133% of the federal poverty level, thereby potentially increasing manufacturers' Medicaid rebate liability, (vii) expanded the entities eligible for discounts under the Public Health program (viii) created a new Patient-Centered Outcomes Research

Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research, and (ix) established 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.

The current U.S. presidential administration and Congress have, and we expect they will continue to, seek to modify, repeal, or otherwise invalidate all, or certain provisions of, the ACA. Since January 2017, the current U.S. presidential administration has issued two executive orders and other directives designed to delay the implementation of certain provisions of the ACA or otherwise circumvent some of the requirements for health insurance mandated by the ACA. For example, on October 12, 2017, the current U.S. presidential administration issued an executive order that expands the use of association health plans and allows anyone to purchase short-term health plans that provide temporary, limited insurance. This executive order also calls for the halt of federal payments to health insurers for cost-sharing reductions previously available to lower-income Americans to afford coverage. There is still uncertainty with respect to the impact this executive order could have on coverage and reimbursement for healthcare items and services covered by plans that were authorized by the ACA. Concurrently, Congress has considered legislation that would repeal or repeal and replace all or part of the ACA. While Congress has not passed comprehensive repeal legislation, two bills affecting the implementation of certain taxes under the ACA have been signed into law. The Tax Cuts and Jobs Act of 2017, among other things, 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”. Additionally, on January 22, 2018, the current U.S. presidential administration signed a continuing resolution on appropriations for fiscal year 2018 that delayed the implementation of certain ACA-mandated fees, including the so-called “Cadillac” tax on certain high cost employer-sponsored insurance plans, the annual fee imposed on certain health insurance providers based on market share, and the medical device excise tax on non-exempt medical devices. Further, the Bipartisan Budget Act of 2018, or the BBA, among other things, amends the ACA, effective January 1, 2019, to increase from 50 percent to 70 percent the point-of-sale discount that is owed by pharmaceutical manufacturers who participate in Medicare Part D and to close the coverage gap in most Medicare drug plans, commonly referred to as the “donut hole”. There is still uncertainty with respect to the impact the current U.S. presidential administration and the Congress may have, if any, and any changes will likely take time to unfold, and could have an impact on coverage and reimbursement for healthcare items and services covered by plans that were authorized by the ACA. However, we cannot predict the ultimate content, timing or effect of any healthcare reform legislation or the impact of potential legislation on us.

In addition, other legislative changes have been proposed and adopted in the United States since the ACA was enacted to reduce healthcare expenditures. U.S. federal government agencies also currently face potentially significant spending reductions, which may further impact healthcare expenditures. On August 2, 2011, the Budget Control Act of 2011 among other things, created measures for spending reductions by Congress. A joint select committee on deficit reduction, tasked with recommending a targeted deficit reduction of at least $1.2 trillion for the years 2013 through 2021, was unable to reach required goals, thereby triggering the legislation’s automatic reduction to several government programs. This includes aggregate reductions of Medicare payments to providers of 2% per fiscal year. These reductions went into effect on April 1, 2013 and, due to subsequent legislative amendments to the statute, including the BBA, will remain in effect through 2027 unless additional Congressional action is taken. Moreover, on January 2, 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. If federal spending is further reduced, anticipated budgetary shortfalls may also impact the ability of relevant agencies, such as the FDA or the National Institutes of Health to continue to function

at current levels. Amounts allocated to federal grants and contracts may be reduced or eliminated. These reductions may also impact the ability of relevant agencies to timely review and approve research and development, manufacturing, and marketing activities, which may delay our ability to develop, market and sell any products we may develop.

Moreover, payment methodologies, including payment for companion diagnostics, may be subject to changes in healthcare legislation and regulatory initiatives. For example, the Medicare Prescription Drug, Improvement, and Modernization Act of 2003, or MMA, changed the way Medicare covers and pays for pharmaceutical products. The legislation expanded Medicare coverage for drug purchases by the elderly and introduced a new reimbursement methodology based on average sales prices for physician-administered drugs. In addition, this legislation provided authority for limiting the number of drugs that will be covered in any therapeutic class. While the MMA only applies to drug benefits for Medicare beneficiaries, private payors often follow Medicare coverage policy and payment limitations in setting their own reimbursement rates. Therefore, any reduction in reimbursement that results from the MMA may result in a similar reduction in payments from private payors. In addition, CMS has begun bundling the Medicare payments for certain laboratory tests ordered while a patient received services in a hospital outpatient setting and, beginning in 2018, CMS will pay for clinical laboratory services based on a weighted average of reported prices that private payors, Medicare Advantage plans, and Medicaid Managed Care plans pay for laboratory services. Further, on March 16, 2018, CMS finalized its National Coverage Determination, or NCD, for certain diagnostic laboratory tests using next generation sequencing, or NGS, that are approved by the FDA as a companion in vitro diagnostic and used in a cancer with an FDA-approved companion diagnostic indication. Under the NCD, diagnostic tests that gain FDA approval or clearance as an in vitro companion diagnostic will automatically receive full coverage and be available for patients with recurrent, metastatic relapsed, refractory or stages III and IV cancer. Additionally, the NCD extended coverage to repeat testing when the patient has a new primary diagnosis of cancer.

Recently there has 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 current U.S. presidential 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. Additionally, on May 11, 2018, the current U.S. presidential administration laid out the administration's "Blueprint" to reduce the cost of prescription medications while preserving innovation and cures. While the Department of Health and Human Services, or HHS, is soliciting feedback on some of these measures, other actions may be immediately implemented by HHS under existing authority. Although a number of these, and other potential, proposals will require authorization through additional legislation to become effective, Congress and the current U.S. presidential 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 are increasingly passing legislation and implementing regulations designed to control pharmaceutical and biological product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing.

Additionally, on May 30, 2018, the Trickett Wendler, Frank Mongiello, Jordan McLinn, and Matthew Bellina Right to Try Act of 2017 was signed into law. The law, among other things, provides a federal

framework for certain patients to access certain investigational new drug products that have completed a Phase I clinical trial and that are undergoing investigation for FDA approval. Under certain circumstances, eligible patients can seek treatment without enrolling in clinical trials and without obtaining FDA authorization under an FDA expanded access program.

Employees

As of March 31, 2018, we had 128 full-time employees, 21 full-time contract employees and 1 part-time contract employee. Of these employees, 41 have an M.D. or a Ph.D. None of our employees are represented by a labor union or covered by collective bargaining agreements, and we believe our relationship with our employees is good.

Research and Development

Research and development expenses for the years ended December 31, 2016 and 2017 were $43.6 million and $54.6 million, respectively.

Properties and Facilities

Our principal executive office is located in South San Francisco, California, where we lease a total of approximately 52,200 square feet of office and laboratory space in two buildings that we use for our administrative, research and development and other activities. The lease under each of our South San Francisco buildings expires in November 2021, unless we exercise our option to extend each lease term through November 2026. We also have a manufacturing facility and manufacturing-support facility in San Carlos, California, where we lease a total of approximately 29,600 square feet of space in two buildings. The lease on one of our San Carlos buildings expires in July 2021, for which we have two three-year options to extend our lease to July 2027. The lease on the second San Carlos building expires in June 2021, for which we have two three-year options to extend the lease to June 2027.

Legal Proceedings

From time to time, we may be involved in legal proceedings arising in the ordinary course of our business. We are not presently a party to any legal proceedings that, in the opinion of management, would have a material adverse effect on our business. Regardless of outcome, litigation can have an adverse impact on us due to defense and settlement costs, diversion of management resources, negative publicity and reputational harm, and other factors.

MANAGEMENT

Executive Officers and Directors

The following table provides information regarding our executive officers and directors as of April 30, 2018:

Name	Age	Position
Executive Officers:		
William J. Newell	60	Chief Executive Officer and Director
Arturo Molina, M.D., M.S., FACP	59	Chief Medical Officer
Trevor J. Hallam, Ph.D.	60	Chief Scientific Officer
Edward Albini	61	Chief Financial Officer
Shabbir T. Anik, Ph.D.	65	Chief Technical Operations Officer
Non-Employee Directors:		
John G. Freund, M.D.	64	Director
Daniel Janney	52	Director
V. Bryan Lawlis, Ph.D.	66	Director
Joseph M. Lobacki	59	Director
Daniel H. Petree	62	Director
Michael Ross, Ph.D.	68	Director
Armen B. Shanafelt, Ph.D.	59	Director

(1) Member of the Audit Committee.

(2) Member of the Compensation Committee.

(3) Member of the Nominating and Governance Committee.

(4) Lead Independent Director.

Executive Officers

William J. Newell has served as our Chief Executive Officer and a member of our board of directors since January 2009. Previously, he served as the President of Aerovance, Inc., a biotechnology company focused on respiratory diseases, from 2006 to 2007. Mr. Newell has also served as the Chief Business Officer and Senior Vice President at QLT Inc., in several senior management positions at Axys Pharmaceuticals, Inc., and has experience as a corporate lawyer. He currently serves on the boards of directors of two private biotechnology companies, Biotechnology Innovation Organization's Health Section and Emerging Company Section and the California Life Sciences Association, where he also serves as a Chair and as a member of the executive committee. Mr. Newell received an A.B. in Government from Dartmouth College and a J.D. from the University of Michigan Law School. We believe that Mr. Newell is qualified to serve on our board of directors because of his experience with various biotechnology companies, including working with and serving in various executive positions in life sciences companies.

Arturo Molina, M.D., M.S., *FACP*, has served as our Chief Medical Officer since February 2016. From February 2013 to February 2016, Dr. Molina served as Vice President of Oncology Scientific Innovation at Johnson & Johnson's California Innovation Center, an organization focused on building early stage collaborations with emerging companies. Previously, Dr. Molina served as Chief Medical Officer and Vice President of Clinical Development for Johnson and Johnson's Ortho Biotech Oncology Research and Development, a unit of Cougar Biotechnology, Inc., Chief Medical Officer of Cougar Biotechnology, Inc., Senior Director and Interim Head of Oncology/Hematology in the Department of Medical Research and Clinical Development at Biogen Idec, Inc., and Senior Director of Medical Affairs at IDEC Pharmaceuticals Corporation. Since 2006, Dr. Molina has served as a National Advisory

Committee Member for the Harold Amos Medical Faculty Development Program of the Robert Wood Johnson Foundation. From 1991 to 2002, Dr. Molina was a faculty staff physician in the Department of Hematology/Bone Marrow Transplantation and Department of Medical Oncology/Therapeutics Research at City of Hope Comprehensive Cancer Center and Adjunct Professor from 2004 to 2007. Dr. Molina was also on the Board of Directors of the City of Hope Medical Group. Dr. Molina received a B.S. in Zoology and B.A. in Psychology from the University of Texas at Austin and an M.S. in Physiology and M.D. from Stanford University School of Medicine. He is board certified in internal medicine and medical oncology, has an active California medical license and is a staff physician (volunteer) in the Oncology Clinic at the Veterans Affairs Palo Alto Health Care System.

Trevor J. Hallam, Ph.D., has served as our Chief Science Officer since December 2010. Prior to joining us, Dr. Hallam was Executive Vice President of Research & Development at Palatin Technologies, Inc., and held several senior management positions in various pharmaceutical companies, including AstraZeneca PLC, SmithKline & French Laboratories, Ltd., Glaxo Group Research Ltd., Roche Research and Rhone-Poulenc Rorer. Dr. Hallam received a BSc (Hons) in Biochemistry from the University of Leeds and a Ph.D. in Biochemistry from Kings College, University of London. He then conducted post-doctoral training at the Physiological Laboratory, University of Cambridge.

Edward Albini has served as our Chief Financial Officer since January 2013. During 2012, Mr. Albini served as a consulting Chief Financial Officer for Carbylan Biosurgery, a company focused on the development and commercialization of advanced biomaterial-based joint therapies. From 2011 to 2016, Mr. Albini also served as Chief Financial Officer and Secretary for Itero Holdings, LLC, a successor entity to Itero Biopharmaceuticals, Inc., a company focused on the development and commercialization of protein therapeutics, at which Mr. Albini served as Chief Financial Officer and Senior Vice President from 2009 to 2011. Previously, Mr. Albini served as Chief Financial Officer of Novacea, Inc. and Lynx Therapeutics, Inc., both biopharmaceutical companies. Mr. Albini received a B.S.C. in Accounting from Santa Clara University and an M.B.A. from the Walter A. Haas School of Business at the University of California, Berkeley. Mr. Albini is also a certified public accountant (inactive status) in California.

Shabbir T. Anik, Ph.D., has served as our Chief Technical Operations Officer since March 2016. From August 2011 to December 2015, Dr. Anik served as Senior Vice President of Technical Operations at Onyx Pharmaceuticals, Inc., a pharmaceutical company focused on developing medicines for the treatment of cancer. Previously, Dr. Anik served as President and Chief Executive Officer of Althea Technologies Inc., President of Global Pharmaceutical Development Services and Chief Scientific Officer for Patheon Inc. and in various leadership positions at Neurex Corporation and Syntex Inc. Dr. Anik received a B.S. in Pharmacy from the University of Bombay, a Ph.D. in Pharmaceutical Sciences from the University of Wisconsin, Madison and an M.B.A. from Santa Clara University.

Non-Employee Directors

John G. Freund, M.D., has served as a member of our board of directors since February 2014. Dr. Freund founded Skyline Ventures, a venture capital firm, in September 1997, where he has served as a Managing Director since its founding. Prior to founding Skyline, Dr. Freund served as Managing Director at Chancellor Capital Management, cofounded Intuitive Surgical, Inc., served in various positions at Acuson Corporation, was a general partner at Morgan Stanley Venture Partners and co-founded the Healthcare Group in the Corporate Finance Department of Morgan Stanley. Dr. Freund currently serves on the boards of directors of Proteon Therapeutics, Inc., Collegium Pharmaceutical, Inc., Tetraphase Pharmaceuticals, Inc. and six U.S. registered investment funds managed by affiliates of Capital Group, Inc. Dr. Freund is a member of the Advisory Board for the Harvard Business School Healthcare Initiative. Dr. Freund previously served on the boards of directors of several publicly traded

companies, including XenoPort, Inc., where he was Chairman, Concert Pharmaceuticals, Inc., MAP Pharmaceuticals, Inc. and MAKO Surgical Corp. Dr. Freund received an A.B. in History from Harvard College, an M.D. from Harvard Medical School and an M.B.A. from Harvard Business School. We believe that Dr. Freund is qualified to serve on our board of directors because of his training as a physician and his extensive investment, business and board experience with public healthcare and biopharmaceutical companies.

Daniel Janney has served as a member of our board of directors since February 2014. In 1996, Mr. Janney joined Alta Partners, a life sciences venture capital firm, where he is currently a managing director. Prior to joining Alta, Mr. Janney was Vice President of the healthcare and biotechnology investment banking group at Montgomery Securities. Mr. Janney currently serves on the boards of directors of Esperion Therapeutics, Inc., Krystal Biotech and Viveve Medical, Inc., as well as on the boards of directors of several private companies. Mr. Janney is a member of The President's Council of the J. David Gladstone Institutes, serves on the Board of Regents of Georgetown University and serves of the Board of Trustees of the California Academy of Sciences. Mr. Janney received a B.A. in History from Georgetown University and an M.B.A. from the Anderson School at the University of California, Los Angeles. We believe that Mr. Janney is qualified to serve on our board of directors because of his experience working with and serving on the boards of directors of various life sciences companies.

V. Bryan Lawlis, Ph.D., has served as a member of our board of directors since January 2004. From 2011 to 2016, Dr. Lawlis served as the President and Chief Executive Officer of Itero Biopharmaceuticals, LLC, a pharmaceutical company focused on protein therapeutics. Previously, he served in various senior management positions at Itero Biopharmaceuticals, Inc., Aradigm Corporation, Covance Biotechnology Services, Inc. and Genetech, Inc. Dr. Lawlis currently serves on the boards of directors at BioMarin Pharmaceutical Inc., Geron, Inc. and Coherus Biosciences, Inc., as well as on the boards of directors of several private companies. Dr. Lawlis is also an advisor for Phoenix Venture Partners, a venture capital firm that invests in material science and manufacturing technology. Dr. Lawlis holds a B.A. in Microbiology from the University of Texas at Austin and a Ph.D. in Biochemistry from Washington State University. We believe that Dr. Lawlis is qualified to serve on our board of directors because of his longtime involvement in the biotechnology industry and extensive service as a director or officer of other life sciences companies.

Joseph M. Lobacki has served as a member of our board of directors since February 2017. Since January 2018, Mr. Lobacki has served as Executive Vice President and Chief Commercial Officer for Verastem Oncology, a biopharmaceutical company focused on the development and commercialization of therapies for the treatment of hematologic malignancies. From November 2016 to December 2017, Mr. Lobacki served as Chief Operating Officer for Crestovo, a clinical-stage biopharmaceutical company focused on microbiome therapies. From 2014 to 2016, Mr. Lobacki served as Chief Commercial Officer at Medivation, Inc., a biopharmaceutical company focused on development of novel therapies for the treatment of serious diseases. From 2012 to 2014, Mr. Lobacki also served as General Manager of Oncology and an independent biotechnology consultant at Idera Pharmaceuticals, Inc., a biopharmaceutical company focused on therapies for cancer and rare diseases. Previously, Mr. Lobacki served as Senior Vice-President and Chief Commercial Officer at Micromet, Inc., Senior Vice-President and General Manager of US Transplant and Oncology at Genzyme Corporation and in various other positions at SangStat Medical Corporation, Cell Pathways, Inc., Rhone-Poulenc Rorer and Lederle Laboratories. Mr. Lobacki previously served on the board of directors of Celator Pharmaceuticals Inc. Mr. Lobacki earned a B.S. in Biology from Boston College and a B.S. in Pharmacy from the Massachusetts College of Pharmacy. We believe that Mr. Lobacki is qualified to serve on our board of directors because of his strong biopharmaceutical managerial and commercial experience, including his expertise with biopharmaceutical research and development, sales and marketing and strategy and operations.

Daniel H. Petree, has served as a member of our board of directors since August 2009. In April 2012, Mr. Petree co-founded Four Oaks Partners Consulting, LLC, which provides transaction advisory services to small and medium-sized life science companies and in 2000, Mr. Petree co-founded P2 Partners, LLC, Four Oaks' predecessor in the same business. Before co-founding P2 Partners, Mr. Petree served as President and Chief Operating Officer of Axys Pharmaceuticals, Inc., Executive Vice President and Chief Financial Officer of Arris Pharmaceuticals, Incorporated and Vice President of Business Development at TSI Corporation and was a corporate and securities lawyer. Mr. Petree previously served on the boards of directors of Lpath, Inc., Biocept, Inc. and Cypress Bioscience, Inc. along with a number of privately held biotechnology companies. Mr. Petree received an A.B. in History and Political Science from Stanford University and a J.D. from the University of Michigan Law School. We believe that Mr. Petree is qualified to serve on our board of directors because of his experience in the biotechnology industry, including structuring and negotiating pharmaceutical partnering arrangements and strategic transactions.

Michael Ross, Ph.D., has served as a member of our board of directors since October 2006. Since 2002, Dr. Ross has served as a Managing Partner at SV Health Investors LLC, a venture capital firm. Previously, Dr. Ross served in various senior management roles at CyThera, Inc., Carta Proteomics Inc., MetaXen LLC, Arris Pharmaceuticals, Incorporated and Genentech, Inc. Dr. Ross currently serves on the boards of directors of Deciphera Pharmaceuticals, Inc., Ophthotech Corporation, Arsanis, Inc. and Catabasis Pharmaceuticals, Inc., as well on the boards of directors of Adimab Inc. and Ribometrix, Inc., both private companies. Dr. Ross is also on the Board of Overseers of the Thayer School of Engineering at Dartmouth College. Dr. Ross received an A.B. in Chemistry from Dartmouth College and a Ph.D. in Chemistry from the California Institute of Technology and completed post doctorate training in molecular biology at Harvard University. We believe that Dr. Ross is qualified to serve on our board of directors because of his experience in the biopharmaceutical industry, including his expertise in drug discovery and development.

Armen B. Shanafelt, Ph.D., has served as a member of our board of directors since November 2010. Since April 2009, Dr. Shanafelt has served as venture partner, then general partner, of Lilly Ventures, a venture capital firm. Prior to joining Lilly Ventures, Dr. Shanafelt was one of several Chief Science Officers at Eli Lilly and Company, a pharmaceutical research company, specifically responsible for the generation of the early biotherapeutic pipeline which spanned the therapeutic areas of oncology, endocrine and neuroscience. Dr. Shanafelt serves on the boards of directors of Aeglea Biotherapeutics, Inc., Aileron Therapeutics, Inc., Protagonist Therapeutics, Inc. and Surface Oncology, Inc., as well as on the boards of directors of several private companies. Dr. Shanafelt received his B.S. in Chemistry and Physics from Pacific Lutheran University and his Ph.D. in Chemistry from the University of California, Berkeley. He completed his postdoctoral work at DNAX Research Institute. He is a Kauffman Fellow (Class 14). We believe that Dr. Shanafelt is qualified to serve on our board of directors because of his experience in the pharmaceutical and biotechnology businesses, including his expertise with respect to the generation of early biotherapeutic pipelines and his investment experience while a partner with Lilly Ventures.

Election of Officers

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

Board Composition

Our board of directors currently consists of eight members. of our directors are independent within the meaning of the independent director guidelines of the Nasdaq Global Market, or Nasdaq. Pursuant to our current voting agreement and certificate of incorporation, Michael Ross, Daniel Janney, John Freund, Armen B. Shanafelt, Joseph Lobacki, William Newell, Daniel Petree and

Bryan Lawlis have been designated to serve as members of our board. Michael Ross was elected by the holders of our Series A redeemable convertible preferred stock. Daniel Janney was elected by the holders of our Series B redeemable convertible preferred stock. John Freund and Armen B. Shanafelt were elected by the holders of our Series C redeemable convertible preferred stock. Joseph Lobacki was elected by the holders of our common stock. William Newell, Daniel Petree and Bryan Lawlis were elected by the holders of our common stock and redeemable convertible preferred stock, voting together as a single class on an as-converted basis.

The voting agreement and the provisions of our current certificate of incorporation that govern the election and designation of our directors will terminate in connection with this offering, after which no contractual obligations will concern the election of our directors. Each of our current directors will continue to serve until the election and qualification of his successor, or until his earlier death, resignation or removal.

Classified Board of Directors

Upon the completion of this offering, our board of directors will be divided into three staggered classes of directors. At each annual meeting of stockholders, a class of directors will be subject to re-election for a three-year term. As a result, 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. Our directors will be divided among the three classes as follows:

- the Class I directors will be and and their terms will expire at the first annual meeting of stockholders held following the completion of the offering;
- the Class II directors will be , and and their terms will expire at the second annual meeting of stockholders held following the completion of the offering; and
- the Class III directors will be , and and their terms will expire at the third annual meeting of stockholders held following the completion of the offering.

Each director's term continues until the election and qualification of his or her successor, or his or her earlier death, resignation or removal. Our restated certificate of incorporation and restated bylaws that will be in effect upon the completion of this offering authorize only our board of directors to fill vacancies on our board of directors. Any increase or decrease in the number of directors will be distributed among the three classes so that, as nearly as possible, each class will consist of one-third of the directors. This classification of our board of directors may have the effect of delaying or preventing changes in control of our company. See the section entitled "Description of Capital Stock—Anti-Takeover Provisions—Restated Certificate of Incorporation and Restated Bylaw Provisions."

Director Independence

In connection with this offering, we intend to list our common stock on Nasdaq. Under the rules of Nasdaq, independent directors must comprise a majority of a listed company's board of directors within a specified period following the completion of this offering. In addition, the rules of Nasdaq require that, subject to specified exceptions, each member of a listed company's audit, compensation and nominating and governance committees be independent. Under the rules of Nasdaq, a director will only qualify as an "independent director" if, in the opinion of that company's board of directors, that person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director.

Audit committee members must also satisfy the independence criteria set forth in Rule 10A-3 under the Securities Exchange Act of 1934, as amended, or the Exchange Act. In order to be considered independent for purposes of Rule 10A-3, a member of an audit committee of a listed company may not, other than in his or her capacity as a member of the audit committee, the board of directors or any other board committee: (i) accept, directly or indirectly, any consulting, advisory or

other compensatory fee from the listed company or any of its subsidiaries; or (ii) be an affiliated person of the listed company or any of its subsidiaries. We intend to satisfy the audit committee independence requirements of Rule 10A-3 as of the completion of this offering. Additionally, compensation committee members must not have a relationship with us that is material to the director's ability to be independent from management in connection with the duties of a compensation committee member.

Our board of directors has undertaken a review of the independence of each director and considered whether each director has a material relationship with us that could compromise his ability to exercise independent judgment in carrying out his responsibilities. As a result of this review, our board of directors determined that all of our directors, except for , are "independent directors" as defined under the applicable rules and regulations of the Securities and Exchange Commission, or SEC, and the listing requirements and rules of Nasdaq. 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 the may relate to us and our management, including the beneficial ownership of our capital stock by each non-employee director and then transactions involving them described in the section entitled "Certain Relationships and Related Party Transactions."

Committees of the Board of Directors

Our board of directors has an audit committee, a compensation committee and a nominating and governance committee, each of which will have the composition and responsibilities described below as of the completion of this offering. Each of the below committees has a written charter approved by our board of directors. Upon completion of this offering, copies of each charter will be posted on the investor relations section of our website. Members serve on these committees will serve until their resignation or until otherwise determined by our board of directors.

Audit Committee

Our audit committee is comprised of , and , with as the chairman of our audit committee. The composition of our audit committee meets the requirements for independence under the current Nasdaq and SEC rules and regulations. Each member of our audit committee is financially literate. In addition, our board of directors has determined that is an "audit committee financial expert" as defined in Item 407(d)(5)(ii) of Regulation S-K promulgated under the Securities Act of 1933, as amended. This designation does not impose on him any duties, obligations or liabilities that are greater than are generally imposed on members of our audit committee and our board of directors. Our audit committee is directly responsible for, among other things:

- selecting and hiring our independent registered public accounting firm;
- the qualifications, independence and performance of our independent auditors;
- the preparation of the audit committee report to be included in our annual proxy statement;
- our compliance with legal and regulatory requirements;
- our accounting and financial reporting processes, including our financial statement audits and the integrity of our financial statements; and
- reviewing and approving related-person transactions.

Compensation Committee

Our compensation committee is comprised of , and , with as the chairman of our compensation committee. Each member of our compensation committee is a non-employee director, as defined by Rule 16b-3 promulgated under the Exchange Act and meets the requirements for independence under the current Nasdaq listing standards and SEC rules and regulations. Our compensation committee is responsible for, among other things:

- evaluating, recommending, approving and reviewing executive officer compensation arrangements, plans, policies and programs;

- evaluating and recommending non-employee director compensation arrangements for determination by our board of directors;
- administering our cash-based and equity-based compensation plans; and
- overseeing our compliance with regulatory requirements associated with the compensation of directors, officers and employees.

Nominating and Governance Committee

Our nominating and governance committee is comprised of , and , with as the chairman of our nominating and governance committee. Each member of our nominating and governance committee meets the requirements for independence under the current Nasdaq listing standards. Our nominating and governance committee is responsible for, among other things:

- identifying, considering and recommending candidates for membership on our board of directors;
- overseeing the process of evaluating the performance of our board of directors; and
- advising our board of directors on other corporate governance matters.

Compensation Committee Interlocks and Insider Participation

None of the members of our compensation committee has at any time been one of our officers or employees, and none of our executive officers has served as a member of the board of directors, or as a member of the compensation or similar committee, of any entity that has one or more executive officers who served on our board of directors or compensation committee during the year ended December 31, 2017. Prior to establishing the compensation committee, our full board of directors made decisions relating to the compensation of our officers.

Scientific and Clinical Advisory Boards

We have established a scientific advisory board and a clinical advisory board composed of leading academic and industry scientists. We seek advice and input from these scientists on an ad hoc basis, individually or as a group, to provide scientific and clinical feedback and advice related to our research and development platform and programs. The members of our advisory boards consist of experts across a range of key disciplines relevant to our programs. Our advisors are not our employees or directors and have no decision-making authority over our activities. Our advisors may have commitments to, or consulting or advisory contracts with, other entities that may limit their availability to us. In addition, our advisors may have arrangements with other companies to assist those companies in developing products or technologies that may compete with ours. All of our advisors are affiliated with other entities and devote only a small portion of their time to us. Our advisors are retained under consulting agreements and receive cash compensation based upon consulting services rendered. In addition, in the past we have granted stock options to purchase common stock to certain advisory members for their service.

Code of Business Conduct and Ethics

Prior to the completion of this offering, our board of directors will adopt a code of business conduct and ethics that applies to all of our employees, officers and directors, including our Chief Executive Officer, Chief Financial Officer and other executive and senior officers. The full text of our code of business conduct and ethics will be posted on the investor relations section of our website. The reference to our website address in this prospectus does not include or incorporate by reference the information on our website into this prospectus. We intend to disclose future amendments to certain provisions of our code of business conduct and ethics, or waivers of these provisions, on our website or in public filings to the extent required by the applicable rules.

Non-Employee Director Compensation

The following table presents the total compensation earned by each of our non-employee directors in the year ended December 31, 2017. Our Chief Executive Officer, Mr. Newell, receives no compensation for his service as a director. Other than as described below, none of our non-employee directors received any fees or reimbursement of any expenses (other than customary expenses in connection with the attendance of meetings of our board of directors) or any equity or non-equity awards in the year ended December 31, 2017.

Name	Fees Earned or Paid in Cash ($)	Option Awards ($)(1)(4)	All Other Compensation ($)	Total ($)
John G. Freund, M.D.	–	–	–	–
Dan Janney	–	–	–	–
Bryan Lawlis, Ph.D.	–	–	30,000(2)	30,000
Joseph M. Lobacki	–	115,565	25,000(2)	140,565
Daniel H. Petree	–	–	188,571(2)(3)	188,571
Michael Ross, Ph.D.	–	–	–	–
Armen B. Shanafelt, Ph.D.	–	–	–	–

(1) The amounts reported in this column represent the aggregate grant date fair value of the awards granted under our 2004 Stock Plan, or 2004 Plan, to our directors during the year ended December 31, 2017 as computed in accordance with FASB ASC Topic 718. The assumptions used in calculating the grant date fair value of the awards reported in the Option Awards column are set forth in Note 11 to our financial statements included elsewhere in this prospectus. Note that the amounts reported in this column reflect the aggregate accounting cost for these awards, and do not necessarily correspond to the actual economic value that may be received by the director from the awards.

(2) In 2017, Dr. Lawlis and Messrs. Lobacki and Petree received $30,000, $25,000 and $60,000, respectively, pursuant to their respective consulting agreements with us. We expect to terminate the consulting agreements with each of Dr. Lawlis and Messrs. Lobacki and Petree prior to the completion of this offering.

(3) In 2017, Mr. Petree received approximately $128,571 pursuant to a letter agreement between us and Four Oaks Partners Consulting LLC, or Four Oaks, relating to consulting services provided by Four Oaks. Mr. Petree is a member and managing director of Four Oaks. For additional information regarding the letter agreement, see the section entitled “Certain Relationships and Related Party Transactions—Letter Agreement with Four Oaks.”

(4) The following table sets forth the aggregate number of shares of our common stock subject to outstanding options held by our non-employee directors as of December 31, 2017:

Director Name	Number of Shares Underlying Options Held as of December 31, 2017(1)
John G. Freund, M.D.	–
Dan Janney	–
Bryan Lawlis, Ph.D.	697,000(2)
Joseph M. Lobacki	593,333(3)
Daniel H. Petree	949,333(4)
Michael Ross, Ph.D.	–
Armen B. Shanafelt, Ph.D.	–

(1) All of the outstanding equity awards were granted under our 2004 Plan. In the event of a merger or a change in control (as defined in the 2004 Plan), each outstanding option will 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 in a merger or change in control refuses to assume or substitute for the option, then the optionee will fully vest in and have the right to exercise the option as to all of the optioned stock, including shares as to which it would not otherwise be vested or exercisable.

(2) This amount reflects (i) options to purchase 578,333 shares, all of which are fully vested and (ii) options to purchase 118,667 shares, 1/48th of which vest monthly following the September 15, 2015 vesting commencement date.

(3) This amount reflects options to purchase 593,333 shares, 1/24th of which vest monthly following the February 6, 2017 vesting commencement date.

(4) This amount reflects (i) options to purchase 819,347 shares, all of which are fully vested, (ii) options to purchase 77,113 shares, 1/48th of which vest monthly following the February 27, 2014 vesting commencement date and (iii) options to purchase 52,873 shares, 1/48th of which vest monthly following the September 15, 2015 vesting commencement date.

Prior to this offering, we did not have a formal policy to provide any cash or equity compensation to our non-employee directors for their service on our board of directors or committees of our board of directors. In connection with this offering, our board of directors expects to approve annual non-employee director compensation, which will take effect following the completion of this offering.

EXECUTIVE COMPENSATION

The following tables and accompanying narrative disclosure set forth information about the compensation earned by our named executive officers during the year ended December 31, 2017. Our named executive officers, who are our principal executive officer and the two most highly-compensated executive officers (other than our principal executive officer) serving as executive officers as of December 31, 2017, were:

- William J. Newell, Chief Executive Officer and Director;
- Arturo Molina, M.D., M.S., FACP, Chief Medical Officer; and
- Trevor Hallam, Ph.D., Chief Science Officer.

Summary Compensation Table

The following table presents summary information regarding the total compensation for services rendered in all capacities that was awarded to and earned by our named executive officers during the year ended December 31, 2017.

Name and Principal Position	Salary($)	Non-equity Incentive Plan Compensation ($)(1)	All Other Compensation($)	Total($)
William J. Newell *Chief Executive Officer*	467,620	–	35,903(2)	503,523
Arturo Molina *Chief Medical Officer*	427,450	–	–	427,450
Trevor Hallam *Chief Science Officer*	393,975	–	149,951(2)(3)	543,926

(1) Bonus amounts for 2017 are not calculable as of the date of this prospectus. It is anticipated that 2017 bonus amounts will be determined by , 2018, at which time we will disclose the amounts of such bonuses.

(2) The amount reported in this column for Mr. Newell and $17,951 of the amount reported in this column for Dr. Hallam represent the aggregate grant-date fair value of the awards granted under our 2017 Call Option Plan to our named executive officers during the year ended December 31, 2017 as computed in accordance with FASB ASC Topic 718. The assumptions used in calculating the grant date fair value of the awards reported in the All Other Compensation column are set forth in Note 11 to our financial statements included elsewhere in this prospectus. Note that the amounts reported in this column reflect the aggregate accounting cost for these awards, and do not necessarily correspond to the actual economic value that may be received by the named executive officers from the awards. For additional information regarding all other compensation, see the section entitled "—2017 Call Option Equity Awards."

(3) The amount includes $132,000 for travel and rental housing expenses paid to Dr. Hallam, whose residence is in Pennsylvania, in conjunction with his regular duties in our California facilities.

2017 Call Option Equity Awards

In February 2017, our board of directors granted Mr. Newell and Dr. Hallam options to purchase 150,000 and 75,000 shares of common stock, respectively, of SutroVax, Inc., or SutroVax, a company in which we own a minority interest, with an exercise price of $0.76 per share. The options vest as to 25% annually over a period of four years as measured from the date of grant and each 25% tranche that vests in a given year must be exercised within the fourth calendar quarter in the year in which such

tranche vests. In 2017, Mr. Newell and Dr. Hallam exercised their vested options in full for a total of 37,500 shares and 18,750 shares, respectively. For additional information regarding the 2017 Call Option Plan, see the section entitled "—Equity Compensation Plans and Other Benefit Plans—2017 Call Option Plan."

Outstanding Equity Awards at 2017 Fiscal Year-End Table

	Option Awards					
Name	Grant Date(1)	Vesting Commencement Date	Number of Securities Underlying Unexercised Options Exercisable	Number of Securities Underlying Unexercised Options Unexercisable	Option Exercise Price ($)	Option Expiration Date
William J. Newell	9/28/2015(2)	9/15/2015	2,144,084	–	0.33	9/27/2025
	9/28/2015(3)	9/15/2015	500,000	–	0.33	9/27/2025
Arturo Molina	2/24/2016(4)	2/22/2016	3,559,998	–	0.39	2/23/2026
Trevor Hallam	2/8/2011(4)	12/1/2010	1,202,131	–	0.12	2/7/2021
	9/20/2012(2)	3/28/2012	704,429	–	0.12	9/19/2022
	2/14/2013(2)	2/14/2013	230,267	–	0.16	2/13/2023
	2/27/2014(2)	2/27/2014	899,651	–	0.16	2/26/2024
	9/28/2015(3)	9/15/2015	560,000	–	0.33	9/27/2025
	9/28/2015(2)	9/15/2015	650,186	–	0.33	9/27/2025

(1) All of the outstanding equity awards were granted under our 2004 Stock Plan. In the event of a merger or a change in control (as defined in the 2004 Plan), 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 in a merger or change in control refuses to assume or substitute for the option, then the optionee shall fully vest in and have the right to exercise the option as to all of the optioned stock, including shares as to which it would not otherwise be vested or exercisable.

(2) 1/48th of the option vests on each monthly anniversary of the vesting commencement date.

(3) 100% of the shares subject to the option are fully vested.

(4) 1/4th of the option vested on the one year anniversary of the vesting commencement date and an additional 1/48th vests monthly thereafter.

Employment Agreements

We intend to enter into new employment agreements with certain senior management personnel in connection with this offering, including our named executive officers. We expect that each of these agreements will provide for at-will employment and include each officer's base salary, a discretionary annual incentive bonus opportunity and standard employee benefit plan participation. We also expect these agreements to provide for severance benefits upon termination of employment or a change in control of our company.

Equity Compensation Plans and Other Benefit Plans

2004 Stock Plan

We maintain the 2004 Stock Plan, as amended, or the 2004 Plan. The purposes of the 2004 Plan are to attract and retain the best available personnel for positions of substantial responsibility, to provide additional incentive to employees, directors and consultants and to promote the success of the Company's business. The material terms of the 2004 Plan are summarized below:

Share Reserve. As of March 31, 2018, we had 47,767,230 shares of our common stock reserved for issuance pursuant to grants under our 2004 Plan of which 3,288,989 shares remained available for

grant. As of March 31, 2018, options to purchase 14,620,727 shares had been exercised and options to purchase 30,109,208 of shares remained outstanding, with a weighted-average exercise price of $0.29 per share. As of March 31, 2018, 368,777 shares of restricted stock were granted, of which all shares remained outstanding.

Administration. Our 2004 Plan is administered by our board of directors or a committee appointed by our board of directors. Subject to the terms of the 2004 Plan, our board of directors has the authority to, among other things, select the persons to whom awards will be granted, construe and interpret our 2004 Plan as well as to prescribe, amend and rescind rules and regulations relating to the 2004 Plan and awards granted thereunder.

Eligibility. Pursuant to the 2004 Plan, we may grant incentive stock options only to our employees (including officers and directors who are also employees). We may grant non-statutory stock options and stock purchase rights to our employees (including officers and directors who are also employees), non-employee directors and consultants.

Options. The 2004 Plan provides for the grant of both (i) incentive stock options, which are intended to qualify for tax treatment as set forth under Section 422 of the Internal Revenue Code, as amended, or the Code, and (ii) non-statutory stock options to purchase shares of our common stock, each at a stated exercise price. The exercise price of each incentive stock option must be at least equal to the fair market value of our common stock on the date of grant and the exercise price of each non-statutory option should be at least equal 85% of the fair market value of our common stock on the date of grant. However, the exercise price of any stock option granted to an individual who owns more than ten percent of the total combined voting power of all classes of our capital stock must be at least equal to 110% of the fair market value of our common stock on the date of grant.

Except in the case of options granted to our officers, directors and consultants, options granted pursuant to our 2004 Plan may become exercisable at a rate of no less than 20% per year over five years from the date grant. The maximum permitted term of options granted under our 2004 Plan is ten years from the date of grant, except that the maximum permitted term of incentive stock options granted to an individual who owns more than ten percent of the total combined voting power of all classes of our capital stock is five years from the date of grant.

Stock Purchase Rights. In addition, the 2004 Plan provides for the issuance of stock purchase rights pursuant to which the holder may purchase restricted shares of our common stock. Among other terms and conditions, the Company may retain an option to repurchase the restricted stock within 90 days of the holder's termination of service. Except with respect to shares purchased by our officers, directors and consultants, the repurchase option may not lapse at a rate less than 20% per year over five years from the date of purchase.

Limited Transferability. Unless otherwise determined by the Administrator, options and stock purchase rights generally may not be sold, pledged, assigned, hypothecated, transferred or disposed of in any manner other than by will, the laws of descent and distribution or qualified domestic relations orders.

Change of Control. In the event of a merger of the Company with or into another corporation, or a change in control (as defined in the 2004 Plan), the 2004 Stock Plan provides that awards may be assumed or an equivalent option may be substituted by the successor corporation (or any parent or subsidiary of such corporation). If any successor corporation fails to assume or substitute such awards, then each award holder will fully vest in his or her stock purchase right and with respect to options such options shall be fully vested and exercisable. Any awards outstanding under the 2004 Plan will terminate if not exercised (as applicable) during a specified time at, or prior to, the consummation of the change in control.

Adjustments. In the event of a dividend or other distribution, recapitalization, stock split, reverse stock split, reorganization, merger, consolidation, split-up, spin-off, combination, repurchase or exchange of any of our securities, or other change in our corporate structure affecting the shares of common stock issued under the 2004 Plan, our Board may adjust the number and class of shares that may be delivered under 2004 Plan and/or the number, class and price of shares covered by each outstanding award, in order to prevent diminution or enlargement of benefits or potential benefits intended to be made available under the 2004 Plan or otherwise as required by applicable law.

Dissolution or Liquidation. In the event of a proposed dissolution or liquidation, the 2004 Plan provides that each outstanding award will terminate if not exercised prior to the dissolution or liquidation event.

Termination. We expect to terminate the 2004 Plan and will cease issuing awards thereunder upon the effective date of our 2018 Equity Incentive Plan (described below), which is the date immediately prior to the date of the effectiveness of the registration statement of which this prospectus forms a part. Any outstanding options and stock purchase rights granted under the 2004 Plan will remain outstanding, subject to the terms of our 2004 Plan and applicable award agreements, until such awards are exercised (in the case of an option) or vest (in the case of stock purchase right) or until they terminate or expire by their terms.

2017 Call Option Plan

We currently maintain the 2017 Call Option Plan, pursuant to which our board of directors may grant eligible service providers call options to purchase common stock of SutroVax that are held by us. Such options are generally subject to vesting based on the holder's continued service with us. As of March 31, 2018, we had reserved for distribution 450,000 of our shares in SutroVax pursuant to call options under the 2017 Call Option Plan, of which 30,000 remained available for grant. As of March 31, 2018, 105,000 call options had been exercised and 315,000 remained outstanding. The options vest as to 25% annually over a period of four years as measured from the date of grant and each 25% tranche that vests in a given year must be exercised within the fourth calendar quarter in the year in which such tranche vests. If the vested option is not so exercised, then that vested portion is forfeited by the option holder. Upon a change of control (as defined in the 2017 Call Option Plan) of SutroVax any unvested portion of an outstanding option will have its vesting fully accelerated and will be exercisable.

2018 Equity Incentive Plan

We intend to adopt our 2018 Equity Incentive Plan, or the 2018 Plan, that will become effective on the date immediately prior to the date of the effectiveness of the registration of which this prospectus forms a part and will serve as the successor to our 2004 Plan. Our 2018 Plan authorizes the award of stock options, restricted stock awards, or RSAs, stock appreciation rights, or SARs, restricted stock units, or RSUs, performance awards and stock bonus awards. We have initially reserved shares of our common stock, plus any reserved shares not issued or subject to outstanding grants under the 2004 Plan on the effective date of the 2018 Plan, for issuance pursuant to awards granted under our 2018 Plan. The number of shares reserved for issuance under our 2018 Plan will increase automatically on January 1 of each of 2019 through 2028 by the number of shares equal to the lesser of % of the aggregate number of outstanding shares of our common stock as of the immediately preceding December 31, or a number as may be determined by our board of directors.

In addition, the following shares will again be available for issuance pursuant to awards granted under our 2018 Plan:

- shares subject to options or SARs granted under our 2018 Plan that cease to be subject to the option or SAR for any reason other than exercise of the option or SAR;

- shares subject to awards granted under our 2018 Plan that are subsequently forfeited or repurchased by us at the original issue price;
- shares subject to awards granted under our 2018 Plan that otherwise terminate without such shares being issued;
- shares subject to awards granted under our 2018 Plan that are surrendered, cancelled or exchanged for cash or a different award (or combination thereof);
- shares issuable upon the exercise of options or subject to other awards granted under our 2004 Plan that cease to be subject to such options or other awards, by forfeiture or otherwise, after the termination of the 2004 Plan;
- shares subject to awards granted under our 2004 Plan that are forfeited or repurchased by us at the original price after the termination of the 2004 Plan; and
- shares subject to awards under our 2004 Plan or our 2018 Plan that are used to pay the exercise price of an option or withheld to satisfy the tax withholding obligations related to any award.

Administration. Our 2018 Plan is expected to be administered by our compensation committee, all of the members of which are outside directors as defined under applicable federal tax laws, or by our board of directors acting in place of our compensation committee. Subject to the terms and conditions of the 2018 Plan, the compensation committee will have the authority, among other things, to select the persons to whom awards may be granted, construe and interpret our 2018 Plan as well as to determine the terms of such awards and prescribe, amend and rescind the rules and regulations relating to the plan or any award granted thereunder. The 2018 Plan provides that the board or compensation committee may delegate its authority, including the authority to grant awards, to one or more executive officers to the extent permitted by applicable law, provided that awards granted to non-employee directors may only be determined by our board of directors.

Eligibility. Our 2018 Plan provides for the grant of awards to our employees, directors, consultants, independent contractors and advisors. No non-employee director may receive awards under our 2018 Plan that, when combined with cash compensation received for service as a non-employee director, exceeds $ in a calendar year or $ in the calendar year of his or her initial services as a non-employee director with us.

Options. The 2018 Plan provides for the grant of both incentive stock options intended to qualify under Section 422 of the Code, and non-statutory stock options to purchase shares of our common stock at a stated exercise price. Incentive stock options may only be granted to employees, including officers and directors who are also employees. The exercise price of stock options granted under the 2018 Plan must be at least equal to the fair market value of our common stock on the date of grant. Incentive stock options granted to an individual who holds, directly or by attribution, more than ten percent of the total combined voting power of all classes of our capital stock must have an exercise price of at least 110% the fair market value of our common stock on the date of grant. Subject to stock splits, dividends, recapitalizations or similar events, no more than shares may be issued pursuant to the exercise of incentive stock options granted under the 2018 Plan.

Options may vest based on service or achievement of performance conditions. Our compensation committee may provide for options to be exercised only as they vest or to be immediately exercisable, with any shares issued on exercise being subject to our right of repurchase that lapses as the shares vest. The maximum term of options granted under our 2018 Plan is ten years from the date of grant, except that the maximum permitted term of incentive stock options granted to an individual who holds, directly or by attribution, more than ten percent of the total combined voting power of all classes of our capital stock is five years from the date of grant.

Restricted Stock Awards. An RSA is an offer by us to sell shares of our common stock subject to restrictions, which may lapse based on the satisfaction of service or achievement of performance conditions. The price, if any, of an RSA will be determined by the compensation committee. Holders of RSAs, unlike holders of options, will have the right to vote and any dividends or stock distributions paid pursuant to an unvested RSAs will be accrued and paid when the restrictions on such shares lapse. Unless otherwise determined by the compensation committee at the time of award, vesting will cease on the date the participant no longer provides services to us and unvested shares will be forfeited to or repurchased by us.

Stock Appreciation Rights. A SAR provides for a payment, in cash or shares of our common stock (up to a specified maximum of shares, if determined by our compensation committee), to the holder based upon the difference between the fair market value of our common stock on the date of exercise and a predetermined exercise price, multiplied by the number of shares. The exercise price of a SAR must be at least the fair market value of a share of our common stock on the date of grant. SARs may vest based on service or achievement of performance conditions, and may not have a term that is longer than ten years from the date of grant.

Restricted Stock Units. RSUs represent the right to receive shares of our common stock at a specified date in the future, and may be subject to vesting based on service or achievement of performance conditions. Payment of earned RSUs will be made as soon as practicable on a date determined at the time of grant, and may be settled in cash, shares of our common stock or a combination of both. No RSU may have a term that is longer than ten years from the date of grant.

Performance Awards. Performance awards granted to pursuant to the 2018 Plan may be in the form of a cash bonus, or an award of performance shares or performance units denominated in shares of our common stock, that may be settled in cash, property or by issuance of those shares subject to the satisfaction of achievement of specified performance conditions.

Stock Bonus Awards. A stock bonus award provides for payment in the form of cash, shares of our common stock or a combination thereof, based on the fair market value of shares subject such award as determined by our compensation committee. The awards may be granted as consideration for services already rendered, or at the discretion of the compensation committee, may be subject to vesting restrictions based on continued service or performance conditions.

Dividend Equivalents Rights. Dividend equivalent rights may be granted at the discretion of our compensation committee, and represent the right to receive the value of dividends, if any, paid by us in respect of the number of shares of our common stock underlying an award. Dividend equivalent rights will be subject to the same vesting or performance conditions as the underlying award and will be paid only at such time as the underlying award has become fully vested. Dividend equivalent rights may be settled in cash, shares or other property, or a combination of thereof as determined by the compensation committee.

Change of Control. Our 2018 Plan provides that, in the event of a change of control (as defined in the 2018 Plan), outstanding awards under our 2018 Plan shall be subject to the agreement evidencing the change of control, which need not treat all outstanding awards in an identical manner, and may include one or more of the following: (i) the continuation of the outstanding awards; (ii) the assumption of the outstanding awards by the surviving corporation or its parent; (iii) the substitution by the surviving corporation or its parent of new options or equity awards for the outstanding awards; (iv) the full or partial acceleration of exercisability or vesting or lapse of Company's right to repurchase or forfeiture rights and accelerated expiration of the award; (v) the settlement of the full value of the outstanding awards (whether or not then vested or exercisable) in cash, cash equivalents, or securities of the successor entity with a fair market value equal to the required amount, as determined in

accordance with the 2018 Plan and which payments may be deferred until the date or dates the award would have become exercisable or vested; or (vi) the cancellation of the outstanding awards for no consideration;. The vesting of all awards granted to our non-employee directors will accelerate and such awards will become exercisable (to the extent applicable) in full prior to the consummation of the change of control at such times and on such conditions as the committee determines.

Adjustment. In the event of a change in the number of outstanding shares of our common stock without consideration by reason of a stock dividend, extraordinary dividend or distribution, recapitalization, stock split, reverse stock split, subdivision, combination, consolidation reclassification, spin-off or similar change in our capital structure, appropriate proportional adjustments will be made to the number of shares reserved for issuance under our 2018 Plan; the exercise prices, number and class of shares subject to outstanding options or SARs; the number and class of shares subject to other outstanding awards; and any applicable maximum award limits with respect to incentive stock options..

Clawback; Transferability. All awards will be subject to clawback or recoupment pursuant to any compensation clawback or recoupment policy adopted by the Board or required by law during the term of service of the award holder, to the extent set forth in such policy or applicable agreement. Except in limited circumstances, awards granted under our 2018 Plan may generally not be transferred in any manner prior to vesting other than by will or by the laws of descent and distribution.

Amendment and Termination. Our board of directors may amend our 2018 Plan at any time, subject to stockholder approval as may be required. Our 2018 Plan will terminate ten years from the date our board of directors adopts the plan, unless it is terminated earlier by our board of directors. No termination or amendment of the 2018 Plan may adversely affect any then-outstanding award without the consent of the affected participant, except as is necessary to comply with applicable laws.

2018 Employee Stock Purchase Plan

We intend to adopt a 2018 Employee Stock Purchase Plan, or ESPP, that will become effective upon the effectiveness of the registration statement of which this prospectus forms a part in order to enable eligible employees to purchase shares of our common stock with accumulated payroll deductions. Our ESPP is intended to qualify under Section 423 of the Code.

Shares Available. We have initially reserved shares of our common stock for sale under our ESPP. The aggregate number of shares reserved for sale under our ESPP will increase automatically on January 1st of each of the first twenty calendar years after the effective date by the number of shares equal to the lesser of % of the total outstanding shares of our common stock as of the immediately preceding December 31 (rounded to the nearest whole share) or a number of shares as may be determined by our board of directors in any particular year. The aggregate number of shares issued over the term of our ESPP, subject to stock-splits, recapitalizations or similar events, may not exceed shares of our common stock.

Administration. Our compensation committee will administer our ESPP subject to the terms and conditions of the ESPP. Among other things, the compensation committee will have the authority to determine eligibility for participation the ESPP, designate separate offerings under the plan, and construe, interpret and apply the terms of the plan.

Eligibility. Employees eligible to participate in any offering pursuant to the ESPP generally include any employee that is employed by us or certain of our designated subsidiaries at the beginning of the offering period. However, employees who are customarily employed for 20 hours or less per week or for five months or less in a calendar year are not eligible to participate in the ESPP. In addition, any employee who owns (or is deemed to own as a result of attribution) 5% or more of the total combined

voting power or value of all classes of our capital stock, or the capital stock of one of our qualifying subsidiaries, or who will own such amount as a result of participation in the ESPP, will not be eligible to participate in the ESPP. The compensation committee may impose additional restrictions on eligibility from time to time.

Offerings. Under our ESPP, eligible employees will be offered the option to purchase shares of our common stock at a discount over a series of offering periods. Each offering period may itself consist of one or more purchase periods. No offering period may be longer than 27 months.

Participation. Participating employees will be able to purchase the offered shares of our common stock by accumulating funds through payroll deductions. Participants may select a rate of payroll deduction between % and % of their compensation. However, a participant may not purchase more than shares during any one purchase period, and may not subscribe for more than $ in fair market value of shares of our common stock (determined as of the date the offering period commences) in any calendar year in which the offering is in effect. Our compensation committee, in its discretion, may set a lower maximum amount of shares which may be purchased.

The purchase price for shares of our common stock purchased under the ESPP will be % of the lesser of the fair market value of our common stock on (i) the first trading day of the applicable offering period or (ii) the last trading day of each purchase period in the applicable offering period.

Once an employee becomes a participant in an offering period, the participant will be automatically enrolled in each subsequent offering period at the same contribution level. A participant may reduce his or her contribution in accordance with procedures set forth by the compensation committee and may withdraw from participation in the ESPP at any time prior the end of an offering period, or such other time as may be specified by the compensation committee. Upon withdrawal, the accumulated payroll deductions will be returned to the participant without interest.

Adjustments upon Recapitalization. If the number of outstanding shares of our common stock is changed by stock dividend, recapitalization, stock split, reverse stock split, subdivision, combination, reclassification or similar change in our capital structure without consideration, then our compensation committee will proportionately adjust the number and class of common stock that is available under the ESPP, the purchase price and number of shares any participant has elected to purchase as well as the maximum number of shares which may be purchased by participants.

Change of Control. If we experience a change of control transaction, any offering period that commenced prior to the closing of the proposed change of control transaction will be shortened and terminated on a new purchase date. The new purchase date will occur on or prior to the closing of the proposed change of control transaction, and our ESPP will then terminate on the closing of the proposed change of control.

Transferability. A participant may not assign, transfer, pledge or otherwise dispose of payroll deductions credited to his or her account, or any rights with regard to an election to purchase shares pursuant to the ESPP other than by will or the laws of descent or distribution.

Amendment; Termination. The compensation committee may amend, suspend or terminate the ESPP at any time without stockholder consent, except as required by law. Our ESPP will continue until the earlier to occur of (a) termination of the ESPP by the Board, (b) issuance of all of the shares reserved for issuance under the ESPP, or (c) the twentieth anniversary of the effective date under the ESPP.

401(k) Plan

We sponsor a retirement savings plan established in April 2008 that is intended to qualify for favorable tax treatment under Section 401(a) of the Code, and contains a cash or deferred feature that is intended to meet the requirements of Section 401(k) of the Code. Participants may make pre-tax and certain after-tax (Roth) salary deferral contributions to the plan from their eligible earnings up to the statutorily prescribed annual limit under the Code. Participants who are 50 years of age or older may contribute additional amounts based on the statutory limits for catch-up contributions. Participant contributions are held in trust as required by law. No minimum benefit is provided under the plan. An employee's interest in his or her salary deferral contributions is 100% vested when contributed. We have the ability to make discretionary contributions under the plan but have not done so to date.

Other Benefits

Our named executive officers are eligible to participate in our employee benefit plans on the same basis as our other employees, including our health and welfare plans.

Limitations on Liability and Indemnification Matters

Our restated certificate of incorporation that will become effective in connection with the completion of this offering contains provisions that limit the liability of our directors for monetary damages to the fullest extent permitted by the Delaware General Corporation Law, or DGCL. 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 DGCL; or
- any transaction from which the director derived an improper personal benefit.

Our restated certificate of incorporation and our restated bylaws that will become effective in connection with the completion of this offering require us to indemnify our directors and officers to the maximum extent not prohibited by the DGCL and allow us to indemnify other employees and agents as set forth in the DGCL.

We have entered, and intend to continue to enter, into separate indemnification agreements with our directors, officers and certain of our key employees, in addition to the indemnification provided for in our restated certificate of incorporation and restated bylaws. These agreements, among other things, require us to indemnify our directors, officers and key employees for certain expenses, including attorneys' fees, judgments, penalties, fines and settlement amounts actually incurred by these individuals in any action or proceeding arising out of their service to us or any of our subsidiaries or any other company or enterprise to which these individuals provide services at our request. Subject to certain limitations, our indemnification agreements also require us to advance expenses incurred by our directors, officers and key employees for the defense of any action for which indemnification is required or permitted.

We believe that these indemnification provisions and agreements are necessary to attract and retain qualified directors, officers and key employees. We also maintain directors' and officers' liability insurance.

The limitation of liability and indemnification provisions in our restated certificate of incorporation 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 other stockholders. Further, a stockholder's investment may be adversely affected to the extent that we pay the costs of settlement and damage awards against directors and officers as required by these indemnification provisions.

At present, there is no pending litigation or proceeding involving any of our directors or executive officers as to which indemnification is required or permitted, and we are not aware of any threatened litigation or proceeding that may result in a claim for indemnification.

Insofar as indemnification for liabilities arising under the Securities Act of 1933, as amended, or Securities Act, may be permitted to directors, executive officers or persons controlling us, we have been informed that, in the opinion of the Securities and Exchange Commission, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

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 entitled “Management” and “Executive Compensation,” the following is a description of each transaction since January 1, 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 of the foregoing persons, had or will have a direct or indirect material interest.

Other than as described below, there have not been, nor are there any currently proposed, transactions or series of similar transactions to which we have been or will be a party other than compensation arrangements, which are described where required under the section entitled “Executive Compensation.”

Series E Redeemable Convertible Preferred Stock Financing

In May 2018, we sold an aggregate of 99,044,781 shares of our Series E redeemable convertible preferred stock at a purchase price of $0.3193 per share for an aggregate purchase price of approximately $31.6 million. Each share of our Series E redeemable convertible preferred stock will convert automatically into one share of our common stock upon the completion of this offering.

The following table summarizes the Series E redeemable convertible preferred stock purchased by members of our board of directors or their affiliates and holders of more than 5% of our outstanding capital stock:

Name of Stockholder	Shares of Series E Redeemable Convertible Preferred Stock	Total Purchase Price ($)
Alta Partners VIII, L.P.(1)	15,659,254	4,999,999.81
Celgene Corporation	12,918,885	4,124,999.99
Lilly Ventures Fund I, LLC(2)	18,791,105	5,999,999.83
Mutual Fund Series Trust, on behalf of Eventide Healthcare & Life Sciences Fund	21,922,956	6,999,999.86
Skyline Venture Partners V, L.P.(3)	15,659,254	4,999,999.81
Entities affiliated with SV Health Investors(4)	7,667,584	2,448,259.58

(1) Alta Partners VIII, L.P., or Alta Partners, holds more than 5% of our outstanding capital stock. Daniel S. Janney, a member of our board of directors is a managing director of Alta Partners Management VIII, LLC, which is the general partner of Alta Partners.

(2) Lilly Ventures Fund I, LLC, or LVFI, holds more than 5% of our outstanding capital stock. LV Management Group, LLC, or LVMG, is the management company for LVFI and may be deemed to indirectly beneficially own the shares held by LVFI. Armen B. Shanafelt, Ph.D., a member of our board of directors, is a member of LVMG’s management committee.

(3) Skyline Venture Partners V, L.P., or Skyline L.P., holds more than 5% of our outstanding capital stock. John G. Freund, a member of our board of directors, is a managing director of Skyline Venture Management V, LLC, which is the general partner of Skyline L.P.

(4) SV Health Investors and affiliated entities hold more than 5% of our outstanding capital stock. ILSF III, LLC, or ILSF LLC, is the general partner of International Life Sciences Fund III (GP), L.P., which is the general partner of each of ILSF LP1, ILSF Co-Investment and ILSF Strategic Partners. Michael Ross, Ph.D., a member of our board of directors, is a member of SVLSF V, LLC's investment committee.

Loan to Executive Officer

In August 2010, we received a promissory note with recourse from Mr. Newell, our Chief Executive Officer, in connection with Mr. Newell's purchase of shares of our common stock. The principal amount of the note was approximately $200,000, which accrues interest at 0.53%, compounding semiannually. The note can be prepaid without penalty and is due on August 30, 2019. The outstanding balance of approximately $208,000 as of December 31, 2017, including principal and accrued and unpaid interest on the note, will be paid prior to the public filing of the registration statement related to this offering.

Transactions with Celgene

In September 2014, we entered into a collaboration and license agreement with Celgene Corporation, or Celgene, a beneficial owner of approximately 14.5% of our stock as of May 30, 2018, or the 2014 Celgene Agreement, to jointly develop up to six prioritized anti-cancer bispecific antibodies and/or antibody-drug conjugates directed primarily to immuno-oncology targets. In August 2017, we amended our agreement with Celgene and entered into the 2017 Celgene Agreement to focus the collaboration on four programs and to change certain material features of the 2014 Celgene Agreement. Pursuant to these agreements, we received aggregate payments from Celgene of $15.0 million, $35.0 million and $22.5 million during the years ended December 31, 2015, 2016 and 2017, respectively. See the section entitled "Business—Collaborations and License Agreements" for more information.

Letter Agreement with Four Oaks

In April 2012, we entered into a letter agreement with Four Oaks Partners Consulting, LLC, or Four Oaks, to provide advisory services related to licensing, collaboration co-development and co-promotion opportunities with several large pharmaceutical companies. Mr. Petree, one of our directors, is a member and managing director of Four Oaks. We made payments of $300,000, $700,000 and $450,000 during the years ended December 31, 2015, 2016 and 2017, respectively, to Four Oaks for advisory services related to the collaboration with Celgene. While the letter agreement was terminated in October 2013, under the terms of the letter agreement, we will make future payments to Four Oaks of amounts equal to 2% of any future payments received from Celgene under the 2017 Celgene Agreement. We have no other payment obligations to Four Oaks under the terms of the letter agreement.

Amended and Restated Investors' Rights Agreement

We have entered into a third amended and restated investors' rights agreement, dated May 24, 2018, with certain holders of our redeemable convertible preferred stock, including entities with which certain of our directors are affiliated. These stockholders are entitled to rights with respect to the registration of their shares following this offering under the Securities Act of 1933, as amended. For a description of these registration rights, see the section entitled "Description of Capital Stock—Registration Rights."

Equity Grants to Executive Officers and Directors

We have granted stock options to our executive officers and certain directors, as more fully described in the sections entitled "Executive Compensation" and "Management—Non-Employee Director Compensation," respectively.

Director and Executive Officer Compensation

Please see the sections entitled "Management—Non-Employee 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 the section entitled "Executive Compensation—Employment Agreements."

Indemnification Agreements

In connection with this offering, we intend to enter into new indemnification agreements with each of our directors and executive officers. The indemnification agreements, our restated certificate of incorporation and our restated bylaws will require us to indemnify our directors to the fullest extent not prohibited by Delaware law. Subject to certain limitations, our restated bylaws also require us to advance expenses incurred by our directors and officers. For more information regarding these agreements, see the section entitled "Executive Compensation—Limitations on Liability and Indemnification Matters" for information on our indemnification arrangements with our directors and executive officers.

Policies and Procedures for Related Party Transactions

In connection with this offering, we intend to adopt a written related person transactions policy that provides that our executive officers, directors, nominees for election as a director, beneficial owners of more than 5% of our common stock, and any members of the immediate family of and any entity affiliated with any of the foregoing persons, are not permitted to enter into a material related person transaction with us without the review and approval of our audit committee, or a committee composed solely of independent directors in the event it is inappropriate for our audit committee to review such transaction due to a conflict of interest. We expect the policy to provide that any request for us to enter into a transaction with an executive officer, director, nominee for election as a director, beneficial owner of more than 5% of our common stock or with any of their immediate family members or affiliates in which the amount involved exceeds $120,000 will be presented to our audit committee (or the committee composed solely of independent directors, if applicable) for review, consideration and approval. In approving or rejecting any such proposal, we expect that our audit committee (or the committee composed solely of independent directors, if applicable) will consider the relevant facts and circumstances available and deemed relevant to the audit committee (or the committee composed solely of independent directors, if applicable), including, but not limited to, whether the transaction is on terms no less favorable than terms generally available to an unaffiliated third party under the same or similar circumstances and the extent of the related person's interest in the transaction.

PRINCIPAL STOCKHOLDERS

The following table and accompanying footnotes set forth certain information with respect to the beneficial ownership of our common stock at May 30, 2018, and as adjusted to reflect the shares of common stock to be issued and sold in this offering, for:

- each of our directors;
- each of our named executive officers;
- all of our current directors and executive officers as a group; and
- each person, or group of affiliated persons, who beneficially owned more than 5% of our outstanding shares of common stock.

We have determined beneficial ownership in accordance with the rules of the Securities and Exchange Commission, and the information is not necessarily indicative of beneficial ownership for any other purpose. Except as indicated by the footnotes below, we believe, based on information furnished to us, that the persons and entities named in the table below have sole voting and sole investment power with respect to all shares of common stock that they beneficially owned, subject to applicable community property laws.

Beneficial ownership prior to this offering is based on 326,830,632 shares of common stock outstanding as of May 30, 2018, assuming the automatic conversion of all outstanding shares of our redeemable convertible preferred stock into common stock in connection with this offering. Beneficial ownership after this offering is based on shares of common stock outstanding, assuming (i) the automatic conversion of all outstanding shares of our redeemable convertible preferred stock into common stock as described above, (ii) the issuance of shares of common stock in this offering, and (iii) the issuance of shares, based upon an assumed initial public offering price of $ per share, which is the midpoint of the estimated price range reflected on the cover of this prospectus, upon the expected net exercise of warrants outstanding at May 30, 2018 that would otherwise expire upon the completion of this offering.

In computing the number of shares of common stock beneficially owned by a person and the percentage ownership of that person, we deemed to be outstanding all shares of common stock subject to options held by that person or entity that are currently exercisable or that will become exercisable within 60 days of May 30, 2018. We did not deem these shares outstanding, however, for the purpose of computing the percentage ownership of any other person. Unless otherwise indicated, the address of each beneficial owner listed in the table below is c/o Sutro Biopharma, Inc., 310 Utah Avenue, Suite 150, South San Francisco, California 94080.

	Beneficial Ownership Prior to this Offering		Beneficial Ownership After this Offering	
Name of Beneficial Owner	Number	Percent	Number	Percent
Directors and Named Executive Officers:				
William Newell(1)	11,094,698	3.4%		%
Arturo Molina, M.D., M.S., FACP(2)	3,559,998	1.1		
Trevor Hallam, Ph.D.(3)	4,804,757	1.5		
John G. Freund, M.D.(4)	58,347,129	17.9		
Daniel S. Janney(5)	57,902,043	17.7		
V. Bryan Lawlis, Ph.D.(6)	692,388	*		
Joseph Lobacki(7)	420,277	*		
Daniel H. Petree(8)	945,340	*		
Michael Ross, Ph.D.(9)	53,938,571	16.5		
Armen B. Shanafelt, Ph.D.(10)	46,099,058	14.1		
All executive officers and directors as a group (12 persons)(11)	244,379,332	70.3		
Other 5% Stockholders:				
Alta Partners III, L.P.(5)	57,902,043	17.7		
Celgene Corporation(12)	47,273,962	14.5		
Lilly Ventures Fund I LLC(10)	46,099,058	14.1		
Mutual Fund Series Trust, on behalf of Eventide Healthcare & Life Sciences Fund(13)	21,922,956	6.7		
Skyline Venture Partners, L.P.(4)	58,347,129	17.9		
Entities affiliated with SV Health Investors(9)	53,938,571	16.5		

* Represents beneficial ownership of less than one percent.

(1) Represents (i) 6,758,286 shares of common stock, (ii) 2,644,084 shares underlying options to purchase common stock that are exercisable within 60 days of May 30, 2018, (iii) 745,197 shares of common stock held by Newell Family Revocable Trust DTD 08/14/2008, or Newell Trust, and (iv) 947,131 shares of common stock held by Taluswood Partners, L.P. Mr. Newell is the trustee of the Newell Trust and the general partner of Taluswood Partners, L.P.

(2) Represents 3,559,998 shares underlying options to purchase common stock that are exercisable within 60 days of May 30, 2018.

(3) Represents (i) 558,093 shares of common stock and (ii) 4,246,664 shares underlying options to purchase common stock that are exercisable within 60 days of May 30, 2018.

(4) Represents (i) 58,347,129 shares of common stock held by Skyline Venture Partners V, L.P., or Skyline L.P. John G. Freund, a member of our board of directors, and Yasunori Kaneko are the managing directors of Skyline Venture Management V, LLC, which is the general partner of Skyline L.P. Messrs. Freund and Kaneko may be deemed to share voting and dispositive power over the shares held by Skyline L.P. The address of Skyline L.P. is 525 University Avenue, Suite 1350, Palo Alto, California 94301.

(5) Represents (i) 57,155,992 shares of common stock and (ii) 746,051 shares underlying a warrant to purchase common stock that is exercisable within 60 days of May 30, 2018 held by Alta Partners VIII, L.P., or Alta Partners. Daniel S. Janney, a member of our board of directors, Farah

Champsi and Guy Nohra are the managing directors of Alta Partners Management VIII, LLC, which is the general partner of Alta Partners. Messrs. Janney, Champsi and Nohra may be deemed to share voting and dispositive power over the shares held by Alta Partners. The address of Alta Partners is One Embarcadero Center, Suite 3700, San Francisco, California 94111.

(6) Represents (i) 90,000 shares of common stock and (ii) 602,388 shares underlying options to purchase common stock that are exercisable within 60 days of May 30, 2018.

(7) Represents 420,277 shares underlying options to purchase common stock that are exercisable within 60 days of May 30, 2018.

(8) Represents (i) 11,429 shares underlying a warrant to purchase common stock that is exercisable within 60 days of May 30, 2018 and (ii) 933,911 shares underlying options to purchase common stock that are exercisable within 60 days of May 30, 2018.

(9) Represents (i)(a) 309,383 shares of common stock and (b) 12,816 shares underlying a warrant to purchase common stock that is exercisable within 60 days of May 30, 2018 held by International Life Sciences Fund III Co-Investment, L.P., or ILSF Co-Investment, (ii)(a) 26,073,661 shares of common stock and (b) 1,080,255 shares underlying a warrant to purchase common stock that is exercisable within 60 days of May 30, 2018 held by International Life Sciences Fund III (LP1), L.P., or ILSF LP1, (iii)(a) 249,088 shares of common stock and (b) 10,317 shares underlying a warrant to purchase common stock that is exercisable within 60 days of May 30, 2018 held by International Life Sciences Fund III Strategic Partners, L.P., or ILSF Strategic Partners, (iv) 25,660,754 shares of common stock held by SV Life Sciences Fund V, L.P., or SV Fund V, and (v) 542,297 shares held by SV Life Sciences Fund V Strategic Partners, L.P., or SV Strategic Partners. ILSF III, LLC, or ILSF LLC, is the general partner of International Life Sciences Fund III (GP), L.P., which is the general partner of each of ILSF Co-Investment, ILSF LP1 and ILSF Strategic Partners. SVLSF V, LLC is the general partner of SV Life Sciences Fund V (GP), L.P., which is the general partner of each of SV Fund V and SV Strategic Partners. Michael Ross, Ph.D., a member of our board of directors, Kate Bingham, James Garvey and Eugene D. Hill III are the members of ILSF LLC's and SVLSF V, LLC's investment committee and may be deemed to share voting and dispositive power over the shares held by each of ILSF Co-Investment, ILSF LP1, ILSF Strategic Partners, SV Fund V and SV Strategic Partners. The address of SV Health Investors is One Boston Place, 201 Washington Street, Suite 3900, Boston, Massachusetts 02108.

(10) Represents 46,099,058 shares of common stock held by Lilly Ventures Fund I, LLC, or LVFI. LV Management Group, LLC, or LVMG, is the management company for LVFI and may be deemed to indirectly beneficially own the shares held by LVFI. Armen B. Shanafelt, Ph.D., a member of our board of directors, S. Edward Torres and Steven E. Hall, Ph.D., are the members of LVMG's management committee and may be deemed to share voting and dispositive power over the shares held by LVFI. The address of LVFI is Lilly Ventures, 115 W. Washington Street, South Tower, Suite 1680, Indianapolis, Indiana 46204.

(11) Represents (i) 223,584,479 shares of common stock, (ii) 1,860,868 shares underlying warrants to purchase common stock that are exercisable within 60 days of May 30, 2018 and (iii) 18,933,985 shares underlying options to purchase common stock that are exercisable within 60 days of May 30, 2018.

(12) Represents 47,273,962 shares of common stock held by Celgene Corporation. The address of Celgene is 86 Morris Avenue, Summit, New Jersey 07901.

(13) Represents 21,922,956 shares of common stock held by Mutual Fund Series Trust, on behalf of Eventide Healthcare & Life Sciences Fund, or Eventide. Eventide is a registered investment company for which Eventide Asset Management, LLC, or EAM, acts as investment adviser. Finny Kuruvilla, Chief Investment Officer of EAM may be deemed to have sole voting and investment power with respect to all of such shares. The address of Eventide is One International Place, Suite #3510, Boston, Massachusetts 02110.

DESCRIPTION OF CAPITAL STOCK

The following description summarizes the most important terms of our capital stock, as they will be in effect following this offering. Because it is only a summary, it does not contain all the information that may be important to you. We expect to adopt a restated certificate of incorporation and restated bylaws that will become effective upon the completion of this offering, and this description summarizes provisions that are expected to be included in these documents. For a complete description, you should refer to our restated certificate of incorporation and restated bylaws, which are included as exhibits to the registration statement of which this prospectus forms a part, and to the applicable provisions of Delaware law.

Upon the completion of this offering, our authorized capital stock will consist of shares of common stock, $0.001 par value per share, and shares of undesignated preferred stock, $0.001 par value per share.

Pursuant to the provisions of our current certificate of incorporation all of the outstanding redeemable convertible preferred stock will automatically convert into common stock in connection with the completion of this offering. Our Series A redeemable convertible preferred stock will convert at a ratio of 1:1.2762, our Series B redeemable convertible preferred stock will convert at a ratio of 1:1.6441, our Series C redeemable convertible preferred stock will convert at a ratio of 1:1.1102, our Series C-2 redeemable convertible preferred stock will convert at a ratio of 1:1.1611, our Series D redeemable convertible stock will convert at a ratio of 1:1.1611, our Series D-2 redeemable convertible preferred stock will convert at a ratio of 1:1.1808 and our Series E redeemable convertible preferred stock will convert at a ratio of 1:1. Assuming the effectiveness of this conversion as of March 31, 2018, there were shares of our common stock issued, held by approximately stockholders of record, and no shares of our redeemable convertible preferred stock outstanding. Our board of directors is authorized, without stockholder approval, to issue additional shares of our capital stock.

Common Stock

Dividend Rights

Subject to preferences that may apply to any shares of preferred stock outstanding at the time, the holders of our common stock are entitled to receive dividends out of funds legally available if our board of directors, in its discretion, determines to issue dividends and then only at the times and in the amounts that our board of directors may determine. See the section entitled “Dividend Policy.”

Voting Rights

Holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of stockholders. We have not provided for cumulative voting for the election of directors in our restated certificate of incorporation, which means that holders of a majority of the shares of our common stock will be able to elect all of our directors. Our restated certificate of incorporation will establish a classified board of directors, to be divided into three classes 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.

No Preemptive or Similar Rights

Our common stock is not entitled to preemptive rights, and is not subject to conversion, redemption or sinking fund provisions.

Right to Receive Liquidation Distributions

Upon our liquidation, dissolution or winding-up, the assets legally available for distribution to our stockholders would be distributable ratably among the holders of our common stock and any

participating preferred stock outstanding at that time, subject to prior satisfaction of all outstanding debt and liabilities and the preferential rights of and the payment of liquidation preferences, if any, on any outstanding shares of preferred stock.

Preferred Stock

Immediately prior to the completion of this offering, each outstanding share of preferred stock will be converted into common stock. Our Series A redeemable convertible preferred stock will convert at a ratio of 1:1.2762, our Series B redeemable convertible preferred stock will convert at a ratio of 1:1.6441, our Series C redeemable convertible preferred stock will convert at a ratio of 1:1.1102, our Series C-2 redeemable convertible preferred stock will convert at a ratio of 1:1.1611, our Series D redeemable convertible stock will convert at a ratio of 1:1.1611, our Series D-2 redeemable convertible preferred stock will convert at a ratio of 1:1.1808 and our Series E redeemable convertible preferred stock will convert at a ratio of 1:1.

Following the completion of this offering, our board of directors will be authorized, subject to limitations prescribed by Delaware law, to issue preferred stock in one or more series, to establish from time to time the number of shares to be included in each series and to fix the designation, powers, preferences and rights of the shares of each series and any of their qualifications, limitations or restrictions, in each case without further vote or action by our stockholders. Our board of directors will also be able to increase or decrease the number of shares of any series of preferred stock, but not below the number of shares of that series then outstanding, without any further vote or action by our stockholders. Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of our common stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring or preventing a change in control of our company and might adversely affect the market price of our common stock and the voting and other rights of the holders of our common stock. We have no current plan to issue any shares of preferred stock.

Warrants

As of March 31, 2018, we had outstanding the following warrants to purchase shares of our capital stock:

Type of Capital Stock Underlying Warrant	Total Number of Shares Subject to Warrants	Exercise Price Per Share($)	Issuance Date
Common Stock(1)	40,000	0.16	6/21/2013
Series B Redeemable Convertible Preferred Stock(2)	170,030	0.88	6/17/2008
Series C Redeemable Convertible Preferred Stock(1)	917,232	0.48	7/13/2010
Series C Redeemable Convertible Preferred Stock(1)	435,876	0.48	9/20/2010
Series C Redeemable Convertible Preferred Stock(1)	438,676	0.48	10/22/2010
Series C Redeemable Convertible Preferred Stock(3)	687,928	0.48	11/18/2011
Series D-2 Redeemable Convertible Preferred Stock(4)	682,230	0.66	8/4/2017

(1) The exercise price of these warrants may be paid either in cash or by surrendering the right to receive shares having a value equal to the exercise price. These warrants will expire immediately prior to the completion of this offering if not exercised.

(2) The exercise price of these warrants may be paid either in cash or by surrendering the right to receive shares having a value equal to the exercise price. These warrants will expire on June 17, 2018 if not exercised.

(3) The exercise price of these warrants may be paid either in cash or by surrendering the right to receive shares having a value equal to the exercise price. These warrants will convert into warrants to receive shares of our common stock upon the completion of this offering.

(4) In connection with the initial closing of the Series E redeemable convertible preferred stock financing, these warrants converted into warrants to purchase a total of 1,409,333 shares of Series E redeemable convertible preferred stock at an exercise price of $0.3193 per share. The exercise price of these warrants may be paid either in cash or by surrendering the right to receive shares having a value equal to the exercise price. These warrants will convert into warrants to receive shares of our common stock upon the completion of this offering.

Stock Options

As of March 31, 2018, we had outstanding options to purchase an aggregate 30,109,208 shares of our common stock, with a weighted-average exercise price of $0.29.

Registration Rights

Pursuant to the terms of our amended and restated investors' rights agreement, immediately following this offering, the holders of shares of our common stock will be entitled to rights with respect to the registration of these shares under the Securities Act of 1933, as amended, or the Securities Act, as described below. We refer to these shares collectively as registrable securities.

Demand Registration Rights

Beginning 180 days after the completion of this offering, the holders of at least a majority of the then-outstanding registrable securities may make a written request to us for the registration under the Securities Act of registrable securities representing at least a majority of the then outstanding registrable securities held by such holders. Promptly following such request, we are obligated to provide written notice of such request to all stockholders to file a registration statement under the Securities Act covering all registrable securities that the initiating holders requested to be registered and any additional registrable securities requested to be included in such registration by any other holders. We are only required to file two registration statements that are declared effective upon exercise of these demand registration rights. We may postpone taking action with respect to such filing not more than once during any 12-month period for a total period of not more than 90 days, if within 30 days after receiving a request for registration, we furnish to the holders requesting such registration a certificate signed by our Chief Executive Officer stating that, in the good faith judgment of our board of directors, it would be seriously detrimental to us and our stockholders for such registration statement to be effected at such time.

Form S-3 Registration Rights

Any holder of then-outstanding registrable securities can request that we register all or part of 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 $3.0 million. The stockholders may only require us to effect two registration statements on Form S-3 in a 12-month period. We may postpone taking action with respect to such filing twice during any 12-month period for a total cumulative period of not more than 120 days if our board of directors determines in its good faith judgment that the filing would be seriously detrimental to us and our stockholders.

Piggyback Registration Rights

If we register any of our securities for public sale, holders of then-outstanding registrable securities or their permitted transferees will have the right to include their registrable securities in the registration statement. However, this right does not apply to a registration relating to this offering, a Form S-3 registration as described above, employee benefit plans or a registration relating to a corporate

reorganization. The underwriters of any underwritten offering will have the right to limit the number of shares registered by these holders if they determine that marketing factors require limitation, in which case the number of shares to be registered will be apportioned pro rata among these holders, according to the total number of registrable securities originally requested by such holders to be included in the registration statement. However, the number of shares to be registered by these holders cannot be reduced below 40% of the registrable securities such holders requested to be included in such offering.

Expenses of Registration Rights

We generally will pay all expenses, other than underwriting discounts and commissions.

Expiration of Registration Rights

The registration rights described above will expire, with respect to any particular holder of these rights, on the earlier of a deemed liquidation event, as defined in our restated certificate of incorporation, and such time after this offering as the registrable securities held by such holder may be sold within any ninety day period without restriction pursuant to Rule 144 promulgated under the Securities Act.

Anti-Takeover Provisions

The provisions of Delaware General Corporation Law, or DGCL, our restated certificate of incorporation and our restated bylaws, as we expect they will be in effect upon the completion of this offering, could have the effect of delaying, deferring or discouraging another person from acquiring control of our company. These provisions, which are summarized below, may have the effect of discouraging takeover bids. They are also designed, in part, to encourage persons seeking to acquire control of us to negotiate first with our board of directors. We believe that the benefits of increased protection of our potential ability to negotiate with an unfriendly or unsolicited acquirer outweigh the disadvantages of discouraging a proposal to acquire us because negotiation of these proposals could result in an improvement of their terms.

Delaware Law

We are subject to the provisions of Section 203 of the DGCL regulating corporate takeovers. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a period of three years following the date on which the person became an interested stockholder unless:

- prior to the date of the transaction, the board of directors of the corporation approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the voting stock outstanding, but not the outstanding voting stock owned by the interested stockholder, (i) shares owned by persons who are directors and also officers and (ii) shares owned by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- at or subsequent to the date of the transaction, the business combination is approved by the board of directors of the corporation and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66.67% of the outstanding voting stock that is not owned by the interested stockholder.

Generally, a business combination includes a merger, asset or stock sale, or other transaction or series of transactions together resulting in a financial benefit to the interested stockholder. 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 outstanding voting stock. We expect the existence of this provision to have an anti-takeover effect with respect to transactions our board of directors does not approve in advance. We also anticipate that Section 203 may also discourage attempts that might result in a premium over the market price for the shares of common stock held by stockholders.

Restated Certificate of Incorporation and Restated Bylaw Provisions

Our restated certificate of incorporation and our restated bylaws, as we expect they will be in effect upon the completion of this offering, include a number of provisions that could deter hostile takeovers or delay or prevent changes in control of our company, including the following:

- *Board of Directors Vacancies.* Our restated certificate of incorporation and restated bylaws will authorize only our board of directors to fill vacant directorships, including newly created seats. In addition, the number of directors constituting our board of directors is permitted to be set only by a resolution adopted by a majority vote of our entire board of directors. These provisions would prevent a stockholder from increasing the size of our board of directors and then gaining control of our board of directors by filling the resulting vacancies with its own nominees. This makes it more difficult to change the composition of our board of directors but promotes continuity of management.
- *Classified Board.* Our restated certificate of incorporation and restated bylaws will provide that our board of directors is classified into three classes of directors, each with staggered three-year terms. A third party may be discouraged from making a tender offer or otherwise attempting to obtain control of us as it is more difficult and time consuming for stockholders to replace a majority of the directors on a classified board of directors. See the section entitled "Management—Board Composition."
- *Stockholder Action; Special Meetings of Stockholders.* Our restated certificate of incorporation will provide that our stockholders may not take action by written consent, but may only take action at annual or special meetings of our stockholders. As a result, a holder controlling a majority of our capital stock would not be able to amend our restated bylaws or remove directors without holding a meeting of our stockholders called in accordance with our restated bylaws. Further, our restated bylaws will provide that special meetings of our stockholders may be called only by a majority of our board of directors, the chairman of our board of directors, our Chief Executive Officer or our President, thus prohibiting a stockholder from calling a special meeting. These provisions might delay the ability of our stockholders to force consideration of a proposal or for stockholders controlling a majority of our capital stock to take any action, including the removal of directors.
- *Advance Notice Requirements for Stockholder Proposals and Director Nominations.* Our restated bylaws will provide advance notice procedures for stockholders seeking to bring business before our annual meeting of stockholders or to nominate candidates for election as directors at our annual meeting of stockholders. Our restated bylaws also will specify certain requirements regarding the form and content of a stockholder's notice. These provisions might preclude our stockholders from bringing matters before our annual meeting of stockholders or from making nominations for directors at our annual meeting of stockholders if the proper procedures are not followed. We expect that these provisions might also discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to obtain control of our company.
- *No Cumulative Voting.* The DGCL provides that stockholders are not entitled to the right to cumulate votes in the election of directors unless a corporation's certificate of incorporation

provides otherwise. Our restated certificate of incorporation and restated bylaws will not provide for cumulative voting.

- *Directors Removed Only for Cause.* Our restated certificate of incorporation will provide that stockholders may remove directors only for cause and only by the affirmative vote of the holders of at least two-thirds of our outstanding common stock.
- *Amendment of Charter Provisions.* Any amendment of the above expected provisions in our restated certificate of incorporation would require approval by holders of at least two-thirds of our outstanding common stock.
- *Issuance of Undesignated Preferred Stock.* Our board of directors has the authority, without further action by the stockholders, to issue up to shares of undesignated preferred stock with rights and preferences, including voting rights, designated from time to time by our board of directors. The existence of authorized but unissued shares of preferred stock would enable our board of directors to render more difficult or to discourage an attempt to obtain control of us by merger, tender offer, proxy contest or other means.
- *Choice of Forum.* Our restated certificate of incorporation will provide that 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 DGCL, our restated certificate of incorporation or our restated bylaws; or any action asserting a claim against us that is governed by the internal affairs doctrine. The enforceability of similar choice of forum provisions in other companies' certificates of incorporation has been challenged in legal proceedings, and it is possible that a court could find these types of provisions to be inapplicable or unenforceable.

Transfer Agent and Registrar

Upon the completion of this offering, the transfer agent and registrar for our common stock will be . The transfer agent's address is and its telephone number is .

The Nasdaq Global Market Listing

We intend to apply to list our common stock on the Nasdaq Global Market under the symbol "STRO."

SHARES ELIGIBLE FOR FUTURE SALE

Prior to this offering, there has been no public market for our common stock, and we cannot predict the effect, if any, that market sales of shares of our common stock or the availability of shares of our common stock for sale will have on the market price of our common stock prevailing from time to time. Nevertheless, sales of substantial amounts of our common stock, including shares issued upon exercise of outstanding options and warrants, in the public market following this offering could adversely affect market prices prevailing from time to time and could impair our ability to raise capital through the sale of our equity securities.

Upon the completion of this offering, we will have a total of shares of our common stock outstanding, assuming (i) the automatic conversion of all outstanding shares of our redeemable convertible preferred stock into an aggregate of shares of our common stock, (ii) the issuance of shares of common stock in this offering, and (iii) the issuance of shares of common stock, based upon an assumed initial public offering price of $ per share, which is the midpoint of the estimated price range reflected on the cover of this prospectus, upon the expected net exercise of warrants outstanding at March 31, 2018 that would otherwise expire upon the completion of this offering. Of these outstanding shares, all of the shares of common stock sold in this offering will be freely tradable, except that any shares purchased in this offering by our affiliates, as that term is defined in Rule 144 under the Securities Act of 1933, as amended, or the Securities Act, can only be sold in compliance with the Rule 144 limitations described below.

The remaining outstanding shares of our common stock will be deemed "restricted securities" as defined in Rule 144. Restricted securities may be sold in the public market only if they are registered under the Securities Act or if they qualify for an exemption from registration under Rule 144 or Rule 701 promulgated under the Securities Act, which rules are summarized below. In addition, substantially all of our security holders have, or will have, entered into market standoff agreements with us or lock-up agreements with the underwriters under which they have agreed, subject to specific exceptions, not to sell any of our stock for at least 180 days following the date of this prospectus, as described below. As a result of these agreements and the provisions of our amended and restated investors' rights agreement described above under the section entitled "Description of Capital Stock—Registration Rights," subject to the provisions of Rule 144 or Rule 701, shares will be available for sale in the public market as follows:

- beginning on the date of this prospectus, all of the shares sold in this offering will be immediately available for sale in the public market; and
- beginning 181 days after the date of this prospectus, additional shares will become eligible for sale in the public market, of which shares will be held by affiliates and subject to the volume and other restrictions of Rule 144, as described below.

Lock-Up/Market Standoff Agreements

All of our directors and officers and substantially all of our security holders are, or will be, subject to lock-up agreements or market standoff provisions that prohibit them from offering for sale, selling, contracting to sell, granting any option for the sale of, transferring or otherwise disposing of any shares of our common stock, options or warrants to acquire shares of our common stock or any security or instrument related to our common stock, or entering into any swap, hedge or other arrangement that transfers any of the economic consequences of ownership of our common stock, for a period of 180 days following the date of this prospectus without the prior written consent of Cowen and Company, LLC and Piper Jaffray & Co., subject to certain exceptions. See the section entitled "Underwriting."

Rule 144

In general, under Rule 144 as currently in effect, once we have been subject to public company reporting requirements for at least 90 days, a person who is not deemed to have been one of our affiliates for purposes of the Securities Act at any time during the three months preceding a sale and who has beneficially owned the shares proposed to be sold for at least six months, including the holding period of any prior owner other than our affiliates, is entitled to sell those shares without complying with the manner of sale, volume limitation or notice provisions of Rule 144, subject to compliance with the public information requirements of Rule 144. If such a person has beneficially owned the shares proposed to be sold for at least one year, including the holding period of any prior owner other than our affiliates, then that person would be entitled to sell those shares without complying with any of the requirements of Rule 144.

In general, under Rule 144, as currently in effect, our affiliates or persons selling shares on behalf of our affiliates are entitled to sell upon expiration of the lock-up and market standoff agreements described above, within any three-month period, a number of shares that does not exceed the greater of:

- 1% of the number of shares of our common stock then outstanding, which will equal approximately shares immediately after this offering; or
- the average reported weekly trading volume of our common stock during the four calendar weeks preceding the filing of a notice on Form 144 with respect to that sale.

Sales under Rule 144 by our affiliates or persons selling shares on behalf of our affiliates are also subject to certain manner of sale provisions and notice requirements and to the availability of current public information about us.

Rule 701

Rule 701 generally allows a stockholder who purchased shares of our common stock pursuant to a written compensatory plan or contract and who is not deemed to have been an affiliate of our company during the immediately preceding three months to sell these shares in reliance upon Rule 144, but without being required to comply with the public information, holding period, volume limitation or notice provisions of Rule 144. Rule 701 also permits affiliates of our company to sell their Rule 701 shares under Rule 144 without complying with the holding period requirements of Rule 144. All holders of Rule 701 shares, however, are required by that rule to wait until 90 days after the date of this prospectus before selling those shares pursuant to Rule 701 and are subject to the lock-up and market standoff agreements described above.

Form S-8 Registration Statement

In connection with this offering, we intend to file a registration statement on Form S-8 under the Securities Act covering all of the shares of our common stock subject to outstanding options and the shares of our common stock reserved for issuance under our stock plans. We expect to file this registration statement as soon as permitted under the Securities Act. However, the shares registered on Form S-8 may be subject to the volume limitations and the manner of sale, notice and public information requirements of Rule 144 and will not be eligible for resale until expiration of the lock-up and market standoff agreements to which they are subject. Of the 30,109,208 shares of our common stock that were subject to options outstanding as of March 31, 2018, options to purchase 21,551,007 shares of common stock were vested as of March 31, 2018. Shares of our common stock underlying outstanding options will not be eligible for sale until expiration of the 180 day lock-up and market standoff agreements to which they are subject.

Registration Rights

We have granted demand, piggyback and Form S-3 registration rights to certain of our stockholders to sell our common stock. Registration of the sale of these shares under the Securities Act would result in these shares becoming freely tradable without restriction under the Securities Act immediately upon the effectiveness of the registration, except for shares purchased by affiliates. For a further description of these rights, see the section entitled “Description of Capital Stock—Registration Rights.”

MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES TO NON-U.S. HOLDERS

The following summary describes the material U.S. federal income tax consequences of the acquisition, ownership and disposition of our common stock acquired in this offering by Non-U.S. Holders (as defined below). This discussion does not address all aspects of U.S. federal income taxes, does not discuss the potential application of the alternative minimum tax or Medicare Contribution tax on net investment income and does not deal with state or local taxes, U.S. federal gift and estate tax laws, except to the limited extent provided below, or any non-U.S. tax consequences that may be relevant to Non-U.S. Holders in light of their particular circumstances.

Special rules different from those described below may apply to certain Non-U.S. Holders that are subject to special treatment under the Internal Revenue Code of 1986, as amended, or the Code, such as:

- insurance companies, banks and other financial institutions;
- tax-exempt organizations (including private foundations) and tax-qualified retirement plans;
- foreign governments and international organizations;
- broker-dealers and traders in securities;
- U.S. expatriates and certain former citizens or long-term residents of the United States;
- persons required for U.S. federal income tax purposes to conform the timing of income accruals to their financial statements under Section 451(b) of the Code;
- persons that own, or are deemed to own, more than 5% of our capital stock;
- "controlled foreign corporations," "passive foreign investment companies" and corporations that accumulate earnings to avoid U.S. federal income tax;
- persons that hold our common stock as part of a "straddle," "hedge," "conversion transaction," "synthetic security" or integrated investment or other risk reduction strategy;
- persons who do not hold our common stock as a capital asset within the meaning of Section 1221 of the Code (generally, for investment purposes); and
- partnerships and other pass-through entities, and investors in such pass-through entities (regardless of their places of organization or formation).

Such Non-U.S. Holders are urged to consult their own tax advisors to determine the U.S. federal, state, local and other tax consequences that may be relevant to them.

Furthermore, the discussion below is based upon the provisions of the Code, and U.S. Treasury Regulations, rulings and judicial decisions thereunder as of the date hereof, and such authorities may be repealed, revoked or modified, possibly retroactively, and are subject to differing interpretations which could result in U.S. federal income tax consequences different from those discussed below. We have not requested a ruling from the Internal Revenue Service, or the IRS, with respect to the statements made and the conclusions reached in the following summary, and there can be no assurance that the IRS will agree with such statements and conclusions or will not take a contrary position regarding the tax consequences described herein, or that any such contrary position would not be sustained by a court.

PERSONS CONSIDERING THE PURCHASE OF OUR COMMON STOCK PURSUANT TO THIS OFFERING SHOULD CONSULT THEIR OWN TAX ADVISORS CONCERNING THE U.S. FEDERAL INCOME TAX CONSEQUENCES OF ACQUIRING, OWNING AND DISPOSING OF OUR COMMON STOCK IN LIGHT OF THEIR PARTICULAR SITUATIONS AS WELL AS ANY CONSEQUENCES ARISING UNDER THE LAWS OF ANY OTHER TAXING JURISDICTION, INCLUDING ANY STATE, LOCAL OR NON-U.S. TAX CONSEQUENCES OR ANY U.S. FEDERAL NON-INCOME TAX CONSEQUENCES, AND THE POSSIBLE APPLICATION OF TAX TREATIES.

For the purposes of this discussion, a "Non-U.S. Holder" is a beneficial owner of common stock that is not a U.S. Holder or a partnership for U.S. federal income tax purposes. A "U.S. Holder" means a beneficial owner of our common stock that is, for U.S. federal income tax purposes, (a) an individual citizen or resident of the United States, (b) a corporation (or other entity taxable as a corporation for U.S. federal income tax purposes), created or organized in or under the laws of the United States, any state thereof or the District of Columbia, (c) an estate the income of which is subject to U.S. federal income taxation regardless of its source, or (d) a trust if it (1) is subject to the primary supervision of a court within the United States and one or more U.S. persons (within the meaning of Section 7701(a)(30) of the Code) have the authority to control all substantial decisions of the trust or (2) has a valid election in effect under applicable U.S. Treasury Regulations to be treated as a U.S. person.

If you are an individual non-U.S. citizen, you may, in some cases, be deemed to be a resident alien (as opposed to a nonresident alien) by virtue of being present in the United States for at least 31 days in the calendar year and for an aggregate of at least 183 days during a three-year period ending in the current calendar year. Generally, for this purpose, all the days present in the current year, one-third of the days present in the immediately preceding year, and one-sixth of the days present in the second preceding year, are counted.

Resident aliens are generally subject to U.S. federal income tax as if they were U.S. citizens. Individuals who are uncertain of their status as resident or nonresident aliens for U.S. federal income tax purposes are urged to consult their own tax advisors regarding the U.S. federal income tax consequences of the ownership or disposition of our common stock.

Distributions

We do not expect to make any distributions on our common stock in the foreseeable future. If we do make distributions on our common stock, however, such distributions made to a Non-U.S. Holder of our common stock will constitute dividends for U.S. tax purposes to the extent paid out of our current or accumulated earnings and profits (as determined under U.S. federal income tax principles). Distributions in excess of our current and accumulated earnings and profits will constitute a return of capital that is applied against and reduces, but not below zero, a Non-U.S. Holder's adjusted tax basis in our common stock. Any remaining excess will be treated as gain realized on the sale or exchange of our common stock as described below under the section entitled "—Gain on Disposition of Our Common Stock."

Any distribution on our common stock that is treated as a dividend paid to a Non-U.S. Holder that is not effectively connected with the holder's conduct of a trade or business in the United States will generally be subject to withholding tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty between the United States and the Non-U.S. Holder's country of residence. To obtain a reduced rate of withholding under a treaty, a Non-U.S. Holder generally will be required to provide the applicable withholding agent with a properly executed IRS Form W-8BEN, IRS Form W-8BEN-E or other appropriate form, certifying the Non-U.S. Holder's entitlement to benefits under that treaty. Such form must be provided prior to the payment of dividends and must be updated periodically. If a Non-U.S. Holder holds stock through a financial institution or other agent acting on the holder's behalf, the holder will be required to provide appropriate documentation to such agent. The holder's agent may then be required to provide certification to the applicable withholding agent, either directly or through other intermediaries. If you are eligible for a reduced rate of U.S. withholding tax under an income tax treaty, you should consult with your own tax advisor to determine if you are able to obtain a refund of any excess amounts withheld by timely filing an appropriate claim for a refund with the IRS.

We generally are not required to withhold tax on dividends paid to a Non-U.S. Holder that are effectively connected with the holder's conduct of a trade or business within the United States (and, if

required by an applicable income tax treaty, are attributable to a permanent establishment that the holder maintains in the United States) if a properly executed IRS Form W-8ECI, stating that the dividends are so connected, is furnished to us (or, if stock is held through a financial institution or other agent, to the applicable withholding agent). In general, such effectively connected dividends will be subject to U.S. federal income tax on a net income basis at the regular graduated rates applicable to U.S. persons. A corporate Non-U.S. Holder receiving effectively connected dividends may also be subject to an additional "branch profits tax," which is imposed, under certain circumstances, at a rate of 30% (or such lower rate as may be specified by an applicable treaty) on the corporate Non-U.S. Holder's effectively connected earnings and profits, subject to certain adjustments.

See also the section below entitled "—Foreign Accounts" for additional withholding rules that may apply to dividends paid to certain foreign financial institutions or non-financial foreign entities.

Gain on Disposition of Our Common Stock

Subject to the discussions below under the sections entitled "—Backup Withholding and Information Reporting" and "—Foreign Accounts," a Non-U.S. Holder generally will not be subject to U.S. federal income or withholding tax with respect to gain realized on a sale or other disposition of our common stock unless (a) the gain is effectively connected with a trade or business of the holder in the United States (and, if required by an applicable income tax treaty, is attributable to a permanent establishment that the holder maintains in the United States), (b) the Non-U.S. Holder is a nonresident alien individual and is present in the United States for 183 or more days in the taxable year of the disposition and certain other conditions are met, or (c) we are or have been a "United States real property holding corporation" within the meaning of Code Section 897(c)(2) at any time within the shorter of the five-year period preceding such disposition or the holder's holding period in the common stock.

If you are a Non-U.S. Holder described in (a) above, you will be required to pay tax on the net gain derived from the sale at the regular graduated U.S. federal income tax rates applicable to U.S. persons. Corporate Non-U.S. Holders described in (a) above may also be subject to the additional branch profits tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty. If you are an individual Non-U.S. Holder described in (b) above, you will be required to pay a flat 30% tax on the gain derived from the sale, which gain may be offset by U.S. source capital losses (even though you are not considered a resident of the United States), provided you have timely filed U.S. federal income tax returns with respect to such losses. With respect to (c) above, in general, we would be a United States real property holding corporation if U.S. real property interests as defined in the Code and the U.S. Treasury Regulations comprised (by fair market value) at least half of our worldwide real property interests plus our other assets used or held for use in a trade or business. We believe that we are not, and do not anticipate becoming, a United States real property holding corporation. However, there can be no assurance that we will not become a United States real property holding corporation in the future. Even if we are treated as a U.S. real property holding corporation, gain realized by a Non-U.S. Holder on a disposition of our common stock will not be subject to U.S. federal income tax so long as (1) the Non-U.S. Holder owned, directly, indirectly or constructively, no more than five percent of our common stock at all times within the shorter of (i) the five-year period preceding the disposition or (ii) the holder's holding period and (2) our common stock is regularly traded on an established securities market. There can be no assurance that our common stock will qualify as regularly traded on an established securities market.

See the section entitled "—Foreign Accounts" for additional information regarding withholding rules that may apply to proceeds of a disposition of our common stock paid to foreign financial institutions or non-financial foreign entities.

U.S. Federal Estate Tax

The estates of nonresident alien individuals generally are subject to U.S. federal estate tax on property with a U.S. situs. Because we are a U.S. corporation, our common stock will be U.S. situs property and, therefore, will be included in the taxable estate of a nonresident alien decedent, unless an applicable estate tax treaty between the United States and the decedent's country of residence provides otherwise. The terms "resident" and "nonresident" are defined differently for U.S. federal estate tax purposes than for U.S. federal income tax purposes. Investors are urged to consult their own tax advisors regarding the U.S. federal estate tax consequences of the ownership or disposition of our common stock.

Backup Withholding and Information Reporting

Generally, we or certain financial middlemen must report information to the IRS with respect to any dividends we pay on our common stock including the amount of any such dividends, the name and address of the recipient, and the amount, if any, of tax withheld. A similar report is sent to the holder to whom any such dividends are paid. Pursuant to tax treaties or certain other agreements, the IRS may make its reports available to tax authorities in the recipient's country of residence.

Dividends paid by us (or our paying agents) to a Non-U.S. Holder may also be subject to U.S. backup withholding. U.S. backup withholding generally will not apply to a Non-U.S. Holder who provides a properly executed IRS Form W-8BEN or IRS Form W-8BEN-E, as applicable, or otherwise establishes an exemption, provided that the applicable withholding agent does not have actual knowledge or reason to know the holder is a U.S. person.

Under current U.S. federal income tax law, U.S. information reporting and backup withholding requirements generally will apply to the proceeds of a disposition of our common stock effected by or through a U.S. office of any broker, U.S. or non-U.S., unless the Non-U.S. Holder provides a properly executed IRS Form W-8BEN or IRS Form W-8BEN-E, as applicable, or otherwise meets documentary evidence requirements for establishing non-U.S. person status or otherwise establishes an exemption. Generally, U.S. information reporting and backup withholding requirements will not apply to a payment of disposition proceeds to a Non-U.S. Holder where the transaction is effected outside the United States through a non-U.S. office of a non-U.S. broker. Information reporting and backup withholding requirements may, however, apply to a payment of disposition proceeds if the broker has actual knowledge, or reason to know, that the holder is, in fact, a U.S. person. For information reporting purposes, certain brokers with substantial U.S. ownership or operations will generally be treated in a manner similar to U.S. brokers.

Backup withholding is not an additional tax. If backup withholding is applied to you, you should consult with your own tax advisor to determine whether you have overpaid your U.S. federal income tax, and whether you are able to obtain a tax refund or credit of the overpaid amount.

Foreign Accounts

In addition, U.S. federal withholding taxes may apply under the Foreign Account Tax Compliance Act, or FATCA, on certain types of payments, including dividends and, on or after January 1, 2019, the gross proceeds of a disposition of our common stock, 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, on or after January 1, 2019, 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 agrees to undertake 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. The 30% federal withholding tax described in this paragraph cannot be reduced under an income tax treaty with the United States. 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.

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

EACH PROSPECTIVE INVESTOR SHOULD CONSULT ITS OWN TAX ADVISOR REGARDING THE TAX CONSEQUENCES OF PURCHASING, HOLDING AND DISPOSING OF OUR COMMON STOCK, INCLUDING THE CONSEQUENCES OF ANY PROPOSED CHANGE IN APPLICABLE LAW, AS WELL AS TAX CONSEQUENCES ARISING UNDER ANY STATE, LOCAL, NON-U.S. OR U.S. FEDERAL NON-INCOME TAX LAWS SUCH AS ESTATE AND GIFT TAX.

UNDERWRITING

We and the underwriters for the offering named below have entered into an underwriting agreement with respect to the common stock being offered. Subject to the terms and conditions of the underwriting agreement, each underwriter has severally agreed to purchase from us the number of shares of our common stock set forth opposite its name below. Cowen and Company, LLC and Piper Jaffray & Co. are the representatives of the underwriters.

Underwriter	Number of Shares
Cowen and Company, LLC	
Piper Jaffray & Co.	
JMP Securities LLC	
Wedbush Securities Inc.	
Total	

The underwriting agreement provides that the obligations of the underwriters are subject to certain conditions precedent and that the underwriters have agreed, severally and not jointly, to purchase all of the shares sold under the underwriting agreement if any of these shares are purchased, other than those shares covered by the option to purchase additional shares described below. If an underwriter defaults, the underwriting agreement provides that the purchase commitments of the non-defaulting underwriters may be increased or the underwriting agreement may be terminated.

We have agreed to indemnify the underwriters against specified liabilities, including liabilities under the Securities Act of 1933, or Securities Act, and to contribute to payments the underwriters may be required to make in respect thereof.

The underwriters are offering the shares, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel and other conditions specified in the underwriting agreement. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

Option to Purchase Additional Shares. We have granted to the underwriters an option to purchase up to additional shares of common stock at the public offering price, less the underwriting discount. This option is exercisable for a period of 30 days. The underwriters may exercise this option solely for the purpose of covering overallotments, if any, made in connection with the sale of common stock offered hereby. To the extent that the underwriters exercise this option, the underwriters will purchase additional shares from us in approximately the same proportion as shown in the table above.

Discounts and Commissions. The following table shows the public offering price, underwriting discount and proceeds, before expenses to us. These amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase additional shares.

We estimate that the total expenses of the offering, excluding underwriting discount, will be approximately $ and are payable by us. We have agreed to reimburse the underwriters for certain of their expenses in an amount up to $.

		Total	
	Per Share	Without Option to Purchase Additional Shares Exercise	With Full Option to Purchase Additional Shares Exercise
Public offering price			
Underwriting discount			
Proceeds, before expenses, to us			

The underwriters propose to offer the shares of common stock to the public at the public offering price set forth on the cover of this prospectus. The underwriters may offer the shares of common stock to securities dealers at the public offering price less a concession not in excess of $ per share. If all of the shares are not sold at the public offering price, the underwriters may change the offering price and other selling terms.

Discretionary Accounts. The underwriters do not intend to confirm sales of the shares to any accounts over which they have discretionary authority.

Market Information. Prior to this offering, there has been no public market for shares of our common stock. The initial public offering price will be determined by negotiations between us and the representatives of the underwriters. In addition to prevailing market conditions, the factors to be considered in these negotiations will include:

- the history of, and prospects for, our company and the industry in which we compete;
- our past and present financial information;
- an assessment of our management; its past and present operations, and the prospects for, and timing of, our future revenues;
- the present state of our development; and
- the above factors in relation to market values and various valuation measures of other companies engaged in activities similar to ours.

An active trading market for the shares may not develop. It is also possible that after the offering the shares will not trade in the public market at or above the initial public offering price.

We intend to apply to list our common stock on the Nasdaq Global Market under the symbol “STRO.”

Stabilization. In connection with this offering, the underwriters may engage in stabilizing transactions, overallotment transactions, syndicate covering transactions, penalty bids and purchases to cover positions created by short sales.

- Stabilizing transactions permit bids to purchase shares of common stock so long as the stabilizing bids do not exceed a specified maximum, and are engaged in for the purpose of preventing or retarding a decline in the market price of the common stock while the offering is in progress.
- Overallotment transactions involve sales by the underwriters of shares of common stock in excess of the number of shares the underwriters are obligated to purchase. This creates a

syndicate short position which may be either a covered short position or a naked short position. In a covered short position, the number of shares over-allotted by the underwriters is not greater than the number of shares that they may purchase in the option to purchase additional shares. In a naked short position, the number of shares involved is greater than the number of shares in the option to purchase additional shares. The underwriters may close out any short position by exercising their option to purchase additional shares and/or purchasing shares in the open market.

- Syndicate covering transactions involve purchases of common stock in the open market after the distribution has been completed in order to cover syndicate short positions. In determining the source of shares to close out the short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared with the price at which they may purchase shares through exercise of the option to purchase additional shares. If the underwriters sell more shares than could be covered by exercise of the option to purchase additional shares and, therefore, have a naked short position, the position can be closed out only by buying shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that after pricing there could be downward pressure on the price of the shares in the open market that could adversely affect investors who purchase in the offering.
- Penalty bids permit the representatives to reclaim a selling concession from a syndicate member when the common stock originally sold by that syndicate member is purchased in stabilizing or syndicate covering transactions to cover syndicate short positions.

These stabilizing transactions, syndicate covering transactions and penalty bids may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of our common stock. As a result, the price of our common stock in the open market may be higher than it would otherwise be in the absence of these transactions. Neither we nor the underwriters make any representation or prediction as to the effect that the transactions described above may have on the price of our common stock. These transactions may be effected on the Nasdaq Stock Market, in the over-the-counter market or otherwise and, if commenced, may be discontinued at any time.

Passive Market Making. In connection with this offering, underwriters and selling group members may engage in passive market making transactions in our common stock on the Nasdaq Stock Market in accordance with Rule 103 of Regulation M under the Securities Exchange Act of 1934, as amended, during a period before the commencement of offers or sales of common stock and extending through the completion of the distribution. A passive market maker must display its bid at a price not in excess of the highest independent bid of that security. However, if all independent bids are lowered below the passive market maker's bid, such bid must then be lowered when specified purchase limits are exceeded.

Lock-Up Agreements. Pursuant to certain "lock-up" agreements, we and our executive officers, directors and substantially all of our other stockholders, have agreed, subject to certain exceptions, not to offer, sell, assign, transfer, pledge, contract to sell, or otherwise dispose of or announce the intention to otherwise dispose of, or enter into any swap, hedge or similar agreement or arrangement that transfers, in whole or in part, the economic consequence of ownership of, directly or indirectly, or make any demand or request or exercise any right with respect to the registration of, or file with the Securities and Exchange Commission a registration statement under the Securities Act relating to, any common stock or securities convertible into or exchangeable or exercisable for any common stock without the prior written consent of Cowen and Company, LLC and Piper Jaffray & Co., for a period of 180 days after the date of the pricing of the offering.

This lock-up provision applies to common stock and to securities convertible into or exchangeable or exercisable for common stock. It also applies to common stock owned now or acquired later by the person executing the agreement or for which the person executing the agreement later acquires the power of disposition. The lock-up provision will not restrict broker-dealers from engaging in market making and similar activities conducted in the ordinary course of their business.

Cowen and Company, LLC and Piper Jaffray & Co., in their sole discretion, may release our common stock and other securities subject to the lock-up agreements described above in whole or in part at any time. When determining whether or not to release our common stock and other securities from lock-up agreements, Cowen and Company, LLC and Piper Jaffray & Co. will consider, among other factors, the holder's reasons for requesting the release, the number of shares for which the release is being requested and market conditions at the time of the request. In the event of such a release or waiver for one of our directors or officers, Cowen and Company, LLC and Piper Jaffray & Co. shall provide us with notice of the impending release or waiver at least three business days before the effective date of such release or waiver and we will announce the impending release or waiver by issuing a press release at least two business days before the effective date of the release or waiver.

Electronic Offer, Sale and Distribution of Shares. A prospectus in electronic format may be made available on the websites maintained by one or more of the underwriters or selling group members, if any, participating in this offering and one or more of the underwriters participating in this offering may distribute prospectuses electronically. The representatives may agree to allocate a number of shares to underwriters and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the underwriters and selling group members that will make internet distributions on the same basis as other allocations. Other than the prospectus in electronic format, the information on these websites is not part of this prospectus or the registration statement of which this prospectus forms a part, has not been approved or endorsed by us or any underwriter in its capacity as underwriter, and should not be relied upon by investors.

Other Relationships. Certain of the underwriters and their affiliates have provided, and may in the future provide, various investment banking, commercial banking and other financial services for us and our affiliates for which they have received, and may in the future receive, customary fees.

Selling Restrictions.

Canada. The common stock may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 *Prospectus Exemptions* or subsection 73.3(1) of the *Securities Act* (Ontario), and are permitted clients, as defined in National Instrument 31-103 *Registration Requirements, Exemptions and Ongoing Registrant Obligations*. Any resale of the common stock must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

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

European Economic Area. In relation to each Member State of the European Economic Area, or each, a Relevant Member State, no offer of common stock may be made to the public in that Relevant Member State other than:

- to any legal entity which is a qualified investor, as defined in the European Prospectus Directive;
- to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the 2010 PD Amending Directive, 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive), as permitted under the Prospectus Directive, subject to obtaining the prior consent of the representatives; or
- in any other circumstances falling within Article 3(2) of the European Prospectus Directive,

provided that no such offer of shares shall require the Company or the representative(s) to publish a prospectus pursuant to Article 3 of the Prospectus Directive or supplement a prospectus pursuant to Article 16 of the Prospectus Directive.

Each person in a Relevant Member State who initially acquires any shares or to whom any offer is made will be deemed to have represented, acknowledged and agreed that it is a "qualified investor" within the meaning of the law in that Relevant Member State implementing Article 2(1)(e) of the Prospectus Directive. In the case of any shares being offered to a financial intermediary as that term is used in Article 3(2) of the Prospectus Directive, each such financial intermediary will be deemed to have represented, acknowledged and agreed that the shares acquired by it in the offer have not been acquired on a non-discretionary basis on behalf of, nor have they been acquired with a view to their offer or resale to, persons in circumstances which may give rise to an offer of any shares to the public other than their offer or resale in a Relevant Member State to qualified investors as so defined or in circumstances in which the prior consent of the representatives has been obtained to each such proposed offer or resale.

The Company, the representatives and their affiliates will rely upon the truth and accuracy of the foregoing representations, acknowledgements and agreements.

This prospectus has been prepared on the basis that any offer of shares in any Relevant Member State will be made pursuant to an exemption under the Prospectus Directive from the requirement to publish a prospectus for offers of shares. Accordingly any person making or intending to make an offer in that Relevant Member State of shares which are the subject of the offering contemplated in this prospectus may only do so in circumstances in which no obligation arises for the Company or any of the underwriters to publish a prospectus pursuant to Article 3 of the Prospectus Directive in relation to such offer. Neither the Company nor the underwriters have authorized, nor do they authorize, the making of any offer of shares in circumstances in which an obligation arises for the Company or the underwriters to publish a prospectus for such offer.

For the purpose of the above provisions, the expression "an offer to the public" in relation to any shares 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 the shares to be offered so as to enable an investor to decide to purchase or subscribe the shares, as the same may be varied in the Relevant Member State by any measure implementing the Prospectus Directive in the Relevant Member State and the expression "Prospectus Directive" means Directive 2003/71/EC (including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member States) and includes any relevant implementing measure in the Relevant Member State and the expression "2010 PD Amending Directive" means Directive 2010/73/EU.

United Kingdom. In addition, in the United Kingdom, this document is being distributed only to, and is directed only at, and any offer subsequently made may only be directed at persons who are

"qualified investors" (as defined in the Prospectus Directive) (i) who have professional experience in matters relating to investments falling within Article 19 (5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended, or the Order, and/or (ii) who are high net worth companies (or persons to whom it may otherwise be lawfully communicated) falling within Article 49(2)(a) to (d) of the Order (all such persons together being referred to as "relevant persons").

Any person in the United Kingdom that is not a relevant person should not act or rely on the information included in this document or use it as basis for taking any action. In the United Kingdom, any investment or investment activity that this document relates to may be made or taken exclusively by relevant persons. Any person in the United Kingdom that is not a relevant person should not act or rely on this document or any of its contents.

Certain of the underwriters and their affiliates have provided in the past to us and our affiliates and may provide from time to time in the future certain commercial banking, financial advisory, investment banking and other services for us and such affiliates in the ordinary course of their business, for which they have received and may continue to receive customary fees and commissions. In addition, from time to time, certain of the underwriters and their affiliates may effect transactions for their own account or the account of customers, and hold on behalf of themselves or their customers, long or short positions in our debt or equity securities or loans, and may do so in the future.

France. This prospectus has not been prepared in the context of a public offering of financial securities in France within the meaning of Article L.411-1 of the French Code Monétaire et Financier and Title I of Book II of the Reglement Général of the Autorité des marchés financiers, or the AMF, and therefore has not been and will not be filed with the AMF for prior approval or submitted for clearance to the AMF. Consequently, the shares of our common stock may not be, directly or indirectly, offered or sold to the public in France and offers and sales of the shares of our common stock may only be made in France to qualified investors (investisseurs qualifiés) acting for their own, as defined in and in accordance with Articles L.411-2 and D.411-1 to D.411-4, D.734-1, D.744-1, D.754-1 and D.764-1 of the French Code Monétaire et Financier. Neither this prospectus nor any other offering material may be released, issued or distributed to the public in France or used in connection with any offer for subscription on sale of the shares of our common stock to the public in France. The subsequent direct or indirect retransfer of the shares of our common stock to the public in France may only be made in compliance with Articles L.411-1, L.411-2, L.412-1 and L.621-8 through L.621-8-3 of the French Code Monétaire et Financier.

Germany. Each person who is in possession of this prospectus is aware of the fact that no German securities prospectus (wertpapierprospekt) within the meaning of the securities prospectus act (wertpapier-prospektgesetz), or the act, of the federal republic of Germany has been or will be published with respect to the shares of our common stock. In particular, each underwriter has represented that it has not engaged and has agreed that it will not engage in a public offering in the federal republic of Germany (öffertliches angebot) within the meaning of the act with respect to any of the shares of our common stock otherwise than in accordance with the act and all other applicable legal and regulatory requirements.

Switzerland. The shares common stock may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange, or SIX, or on any other stock exchange or regulated trading facility in Switzerland. This document does not constitute a prospectus within the meaning of, and has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this document nor any other offering or marketing material relating to the shares or the offering may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this document nor any other offering or marketing material relating to the offering, the Company, the shares have been or will be filed with or approved by any Swiss regulatory authority. In particular, this document will not be filed with, and the offer of shares will not be supervised by, the Swiss Financial Market Supervisory Authority FINMA (FINMA), and the offer of shares has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes, or CISA. The investor protection afforded to acquirers of interests in collective investment schemes under the CISA does not extend to acquirers of shares.

Netherlands. The offering of the shares of our common stock is not a public offering in The Netherlands. The shares of our common stock may not be offered or sold to individuals or legal entities in The Netherlands unless (1) a prospectus relating to the offer is available to the public, which has been approved by the Dutch Authority for the Financial Markets (Autoriteit Financiële Markten) or by the competent supervisory authority of another state that is a member of the European Union or party to the Agreement on the European Economic Area, as amended or (2) an exception or exemption applies to the offer pursuant to Article 5:3 of The Netherlands Financial Supervision Act (Wet op het financieel toezicht) or Article 53 paragraph 2 or 3 of the Exemption Regulation of the Financial Supervision Act, for instance due to the offer targeting exclusively "qualified investors" (gekwalificeerde beleggers) within the meaning of Article 1:1 of The Netherlands Financial Supervision Act.

Japan. The shares have not been and will not be registered under the Financial Instruments and Exchange Act. Accordingly, the shares may not be offered or sold, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to others for re-offering or resale, directly or indirectly, in Japan or to or for the benefit of a resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the Financial Instruments and Exchange Act and any other applicable laws, regulations and ministerial guidelines of Japan.

Hong Kong. The shares have not been offered or sold and will not be offered or sold in Hong Kong, by means of any document, other than (a) to "professional investors" as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong and any rules made under that Ordinance; or (b) in other circumstances which do not result in the document being a "prospectus" as defined in the Companies Ordinance (Cap. 32) of Hong Kong or which do not constitute an offer to the public within the meaning of that Ordinance. No advertisement, invitation or document relating to our common stock has been or may be issued or has been or may be in the possession of any person for the purposes of issue, whether in Hong Kong or elsewhere, which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to our common stock which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" as defined in the Securities and Futures Ordinance and any rules made under that Ordinance.

Singapore. This prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of shares may not be circulated or distributed, nor may the shares be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore, or the SFA, (ii) to a relevant person pursuant to Section 275(1), or any person pursuant to Section 275(1A), and in accordance with the conditions specified in Section 275, of the SFA, or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the shares are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

- a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or
- a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor,

securities (as defined in Section 239(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the shares pursuant to an offer made under Section 275 of the SFA except:

- to an institutional investor or to a relevant person defined in Section 275(2) of the SFA, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;
- where no consideration is or will be given for the transfer;
- where the transfer is by operation of law;
- as specified in Section 276(7) of the SFA; or
- as specified in Regulation 32 of the Securities and Futures (Offers of Investments) (Shares and Debentures) Regulations 2005 of Singapore.

We have not authorized and do not authorize the making of any offer of securities through any financial intermediary on our behalf, other than offers made by the underwriters and their respective affiliates, with a view to the final placement of the securities as contemplated in this document. Accordingly, no purchaser of the shares, other than the underwriters, is authorized to make any further offer of shares on our behalf or on behalf of the underwriters.

LEGAL MATTERS

The validity of the shares of common stock offered by this prospectus will be passed upon for us by Fenwick & West LLP, San Francisco, California. Certain legal matters relating to the offering will be passed upon for the underwriters by Cooley LLP, San Francisco, California.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our financial statements as of December 31, 2016 and December 31, 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 1 to the financial statements). We have included our financial statements in the 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.

ADDITIONAL INFORMATION

We have filed with the Securities and Exchange Commission, or SEC, a registration statement on Form S-1 under the Securities Act of 1933, as amended, 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 filed therewith. For further information about us and the common stock offered hereby, reference is made to the registration statement and the exhibits 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 in each instance we refer you to the copy of such contract or other document filed as an exhibit to the registration statement.

We currently do not file periodic reports with the SEC. Upon the completion of this offering, we will be required to file periodic reports, proxy statements and other information with the SEC pursuant to the Securities Exchange Act of 1934, as amended. A copy of the registration statement and the exhibits filed therewith may be inspected without charge at the public reference room maintained by the SEC, located at 100 F Street, NE, Washington, DC 20549, and copies of all or any part of the registration statement may be obtained from that office. 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 of the website is www.sec.gov.

We also maintain a website at www.sutrobio.com. Upon completion of this offering, you may access these materials at our website free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. Information contained on our website is not a part of this prospectus and the inclusion of our website address in this prospectus is an inactive textual reference only.

SUTRO BIOPHARMA, INC.

Index to Financial Statements

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors of Sutro Biopharma, Inc.

Opinion on the Financial Statements

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

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 1 to the financial statements, the Company has incurred significant losses and experienced negative cash flows 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 1. 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 and in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Ernst & Young LLP
We have served as the Company's auditor since 2007.

Redwood City, California
June 1, 2018

Sutro Biopharma, Inc.

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

	December 31,		Pro Forma Stockholders' Deficit as of December 31, 2017
	2016	2017	(unaudited)
Assets			
Current assets:			
Cash and cash equivalents	$ 11,593	$ 22,020	
Marketable securities	35,928	–	
Accounts receivable (including amounts from related parties of $10 and $784 as of December 31, 2016 and 2017, respectively)	577	1,624	
Prepaid expenses and other current assets	1,590	1,985	
Total current assets	49,688	25,629	
Property and equipment, net	18,690	13,997	
Other long-term assets	624	1,128	
Restricted cash	275	15	
Total assets	$ 69,277	$ 40,769	
Liabilities, Redeemable Convertible Preferred Stock, and Stockholders' Deficit			
Current liabilities:			
Accounts payable	$ 3,394	$ 2,902	
Accrued compensation	3,189	3,639	
Deferred revenue—current	43,576	10,709	
Debt—current	–	14,634	
Other current liabilities	22	72	
Total current liabilities	50,181	31,956	
Deferred revenue, non-current	5,858	13,159	
Deferred rent	342	428	
Redeemable convertible preferred stock warrant liability	1,193	1,708	
Other noncurrent liabilities	99	14	
Total liabilities	57,673	47,265	
Commitments and contingencies (Note 8)			
Redeemable convertible preferred stock, $0.001 par value—176,400,163 and 177,082,393 shares authorized as of December 31, 2016 and 2017, respectively; 173,750,421 shares issued and outstanding as of December 31, 2016 and 2017; aggregate liquidation preference of $102,988 as of December 31, 2017; no shares issued and outstanding as of December 31, 2017 pro forma (unaudited)	102,505	102,505	
Stockholders' deficit:			
Common stock, $0.001 par value—270,000,000 and 271,000,000 shares authorized as of December 31, 2016 and 2017, respectively; 16,405,932 and 16,897,022 shares issued and outstanding as of December 31, 2016 and 2017, respectively; shares issued and outstanding pro forma (unaudited)	16	17	
Note receivable from stockholder	(207)	(208)	
Additional paid-in-capital	4,630	6,201	
Accumulated other comprehensive loss	(17)	–	
Accumulated deficit	(95,323)	(115,011)	
Total stockholders' deficit	(90,901)	(109,001)	$
Total liabilities, redeemable convertible preferred stock, and stockholders' deficit	$ 69,277	$ 40,769	

See accompanying notes to financial statements

Sutro Biopharma, Inc.

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

	Year Ended December 31,	
	2016	2017
Collaboration revenue (including amounts from a related party of $54,001 and $44,606 during the years ended December 31, 2016 and 2017, respectively)	$ 59,731	$ 51,741
Operating expenses:		
Research and development	43,550	54,639
General and administrative	14,817	16,374
Total operating expenses	58,367	71,013
Income (loss) from operations	1,364	(19,272)
Interest income	251	273
Interest expense	–	(612)
Other income (expense), net	87	(77)
Net income (loss)	$ 1,702	$ (19,688)
Net income (loss) per share attributable to common stockholders, basic and diluted	$ –	$ (1.21)
Weighted-average shares used in computing net income (loss) per share attributable to common stockholders, basic and diluted	14,804,949	16,265,874
Pro forma net loss per share, basic and diluted (unaudited)		$
Weighted-average shares used in computing pro forma net loss per share, basic and diluted (unaudited)		

See accompanying notes to financial statements

Sutro Biopharma, Inc.

Statements of Comprehensive Income (Loss)
(in thousands)

	Year Ended December 31,	
	2016	2017
Net income (loss)	$ 1,702	$ (19,688)
Other comprehensive income:		
Unrealized gain on available-for-sale securities	34	17
Comprehensive income (loss)	$ 1,736	$ (19,671)

See accompanying notes to financial statements

Sutro Biopharma, Inc.

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

	Convertible Preferred Stock		Common Stock		Note Receivable from Stockholder	Additional Paid-In-Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Deficit
	Shares	Amount	Shares	Amount					
Balances at December 31, 2015	173,750,421	$102,505	15,114,384	$ 14	$ (200)	$ 3,364	$ (51)	$ (97,025)	$ (93,898)
Exercise of common stock options for cash	–	–	1,291,548	1	–	183	–	–	184
Stock-based compensation expense	–	–	–	–	–	968	–	–	968
Vesting of early exercised shares	–	–	–	1	–	115	–	–	116
Interest on note receivable from stockholder	–	–	–	–	(7)	–	–	–	(7)
Net unrealized gain on available-for-sale securities	–	–	–	–	–	–	34	–	34
Net income	–	–	–	–	–	–	–	1,702	1,702
Balances at December 31, 2016	173,750,421	102,505	16,405,932	16	(207)	4,630	(17)	(95,323)	(90,901)
Exercise of common stock options for cash	–	–	491,090	1	–	94	–	–	95
Stock-based compensation expense	–	–	–	–	–	1,391	–	–	1,391
Vesting of early exercised shares	–	–	–	–	–	86	–	–	86
Interest on note receivable from stockholder	–	–	–	–	(1)	–	–	–	(1)
Net unrealized gain on available-for-sale securities	–	–	–	–	–	–	17	–	17
Net loss	–	–	–	–	–	–	–	(19,688)	(19,688)
Balances at December 31, 2017	173,750,421	$102,505	16,897,022	$ 17	$ (208)	$ 6,201	$ –	$ (115,011)	$ (109,001)

See accompanying notes to financial statements

Sutro Biopharma, Inc.

Statements of Cash Flows
(in thousands)

	Year Ended December 31,	
	2016	2017
Operating activities		
Net income (loss)	$ 1,702	$ (19,688)
Adjustments to reconcile net income (loss) to net cash used in operating activities:		
Depreciation and amortization	5,662	4,990
Amortization of premium on marketable securities	168	106
Stock-based compensation expense	968	1,391
Revaluation of redeemable convertible preferred stock warrant liability	(88)	186
Revaluation of SutroVax option liability	–	(30)
Accretion of debt discount	–	133
Interest on note receivable from stockholder	(7)	(1)
Loss on disposal of property and equipment	98	–
Impairment of long-lived assets	–	2,742
Changes in operating assets and liabilities:		
Accounts receivable	(171)	(1,047)
Prepaid expenses and other assets	(371)	(354)
Accounts payable	874	(473)
Accrued compensation	1,238	451
Other current liabilities	(18)	–
Deferred rent	(95)	86
Deferred revenue	(23,120)	(25,566)
Net cash used in operating activities	(13,160)	(37,074)
Investing activities		
Purchases of marketable securities	(52,304)	(14,220)
Maturities of marketable securities	57,773	34,850
Sales of marketable securities	8,500	15,208
Proceeds from exercise of options for SutroVax shares	–	80
Purchases of property and equipment	(4,394)	(3,316)
Proceeds from sale of property and equipment	16	–
Net cash provided by investing activities	9,591	32,602
Financing activities		
Proceeds from issuance of debt	–	15,000
Payment of debt issuance fees	–	(170)
Payment of deferred offering costs	–	(286)
Proceeds from issuances of common stock upon exercise of stock options	184	95
Net cash provided by financing activities	184	14,639
Net (decrease) increase in cash, cash equivalents and restricted cash	(3,385)	10,167
Cash, cash equivalents and restricted cash at beginning of year	15,253	11,868
Cash, cash equivalents and restricted cash at end of year	$ 11,868	$ 22,035
Supplemental disclosure of cash flow information		
Cash paid for interest	$ –	$ 479
Supplemental Disclosures of Non-Cash Investing and Financing Information		
Vesting of early exercised shares	$ 116	$ 86
Purchase of property and equipment included in accounts payable	$ 532	$ 255
Deferred initial public offering costs included in accounts payable	$ –	$ 259

See accompanying notes to financial statements

Sutro Biopharma, Inc.

Notes to Financial Statements

1. Organization and Principal Activities

Description of Business

Sutro Biopharma, Inc. (the "Company") is a clinical stage drug discovery, development and manufacturing company focused on leveraging its integrated cell-free protein synthesis platform, XpressCF, to create a broad variety of optimally designed, next-generation protein therapeutics for oncology. The Company was incorporated on April 21, 2003, and was formerly known as Fundamental Applied Biology, Inc. The Company is headquartered in South San Francisco, California.

The Company operates in one business segment, the development of biopharmaceutical products.

Going Concern

The Company has incurred significant losses and has negative cash flows from operations. As of December 31, 2017, there was an accumulated deficit of $115.0 million. Management expects to continue to incur additional substantial losses in the foreseeable future as a result of the Company's research and development activities.

As of December 31, 2017, the Company had unrestricted cash and cash equivalents of $22.0 million, which is available to fund future operations. The Company will need to raise additional capital to support the completion of its research and development activities. The Company's activities are subject to significant risks and uncertainties, including failing to secure additional funding to continue to operationalize the Company's current technology and to advance the development of its product candidates.

The Company completed an equity financing and obtained $31.6 million in gross proceeds from the sale of its Series E redeemable convertible preferred stock in May 2018 (see Note 14). The Company believes that its cash and cash equivalents as of December 31, 2017, plus the proceeds from the Series E financing will not be sufficient for the Company to continue as a going concern for at least one year from the issuance date of its financial statements. The Company believes that this raises substantial doubt about its ability to continue as a going concern. As a result, the Company will be required to raise additional capital. If sufficient funds on acceptable terms are not available when needed, the Company could be required to significantly reduce its operating expenses and delay, reduce the scope of, or eliminate one or more of its development programs. Failure to manage discretionary spending or raise additional financing, as needed, may adversely impact the Company's ability to achieve its intended business objectives. In August 2017, the Company entered into a loan and security agreement with Oxford Finance LLC and Silicon Valley Bank under which it borrowed $15.0 million (the "August 2017 Loan") (see Note 7). The August 2017 Loan provides that an event of default will occur if, among other triggers, there occurs any circumstances that could reasonably be expected to result in a material adverse effect on the Company's business, operations or condition, or on its ability to perform its obligations under the loan. The Company has disclosed above that there is currently substantial doubt about its ability to continue as a going concern given its continuing operating losses and its current available capital resources, which could be deemed to be an event of default if such condition was considered to have a material adverse effect on the Company's business, operations or condition. As a result, the Company has classified the entire debt balance as a current liability given that a determination of such an event of default is outside of the Company's control. 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. Other than with respect to the aforementioned loan,

the financial statements do not reflect any adjustments relating to the recoverability and reclassifications of assets and liabilities that might be necessary if the Company is unable to continue as a going concern.

2. Summary of Significant Accounting Policies

Basis of Presentation and Use of Estimates

The accompanying financial statements have been prepared in accordance with U.S. generally accepted accounting principles ("U.S. GAAP"). The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. The Company bases its estimates on historical experience and market-specific or other relevant assumptions that it believes are reasonable under the circumstances. The amounts of assets and liabilities reported in the Company's balance sheets and the amount of expenses and income reported for each of the periods presented are affected by estimates and assumptions, which are used for, but are not limited to, determining research and development periods under multiple element arrangements, stock-based compensation expense, fair value of redeemable convertible preferred stock and warrant liabilities, fair value of common stock, income taxes and certain accrued liabilities. Actual results could differ from such estimates or assumptions.

Unaudited Pro Forma Financial Information

Immediately prior to the completion of an initial public offering ("IPO") of the Company's common stock, all outstanding shares of redeemable convertible preferred stock will convert into common stock and certain redeemable convertible preferred stock warrants and common stock warrants will be net exercised into shares of common stock. Unaudited pro forma stockholders' equity information as of December 31, 2017 assumes the conversion of all outstanding redeemable convertible preferred stock into shares of common stock. The shares of common stock issuable and the proceeds expected to be received in the IPO are excluded from such pro forma financial information. In addition, the pro forma stockholders' equity assumes the reclassification of the redeemable convertible preferred stock warrant liability to stockholders' equity upon completion of an IPO due to the automatic net exercise of certain redeemable preferred stock warrants and the conversion of the remaining redeemable convertible preferred stock warrants into common stock warrants upon an IPO. Unaudited pro forma stockholders' equity information as of December 31, 2017 also assumes the repayment of principal and interest on a $0.2 million outstanding note issued to an executive officer.

Pro forma basic and diluted net loss per share has been computed to give effect to the conversion of all outstanding redeemable convertible preferred stock into shares of common stock and the net exercise of certain redeemable convertible preferred stock warrants. Also, the numerator in the pro forma basic and diluted net loss per share calculation has been adjusted to remove gains or losses resulting from the remeasurement of the redeemable convertible preferred stock warrant liability. The unaudited pro forma net loss per share does not include the shares expected to be sold and related proceeds to be received from the IPO. The unaudited pro forma net loss per share 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 redeemable convertible preferred stock into shares of common stock and the net exercise of certain redeemable convertible preferred stock warrants and common stock warrants, as if such conversion or net exercise had occurred at the beginning of the period, or their issuance dates if later.

Sutro Biopharma, Inc.

Notes to Financial Statements

Cash, Cash Equivalents, Marketable Securities and Restricted Cash

The Company considers all highly liquid investments with original maturities of 90 days or less from the date of purchase to be cash equivalents. Investments 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 current, while investments with maturities in one year or beyond one year from the balance sheet date are classified as long-term investments. Available-for-sale marketable securities are carried at fair value, with unrealized gains and losses reported as a component of accumulated other comprehensive income. Realized gains and losses are included in interest income in the Company's Statement of Operations. There were no material realized gains or losses in the periods presented. The cost of securities sold is based on the specific-identification method.

The Company invests in commercial paper, corporate debt instruments and money market funds with high credit ratings. The Company has established guidelines regarding diversification of its investments and their maturities, with the objectives of maintaining safety and liquidity while maximizing yield.

Under certain lease and credit agreements, the Company has pledged cash and cash equivalents as collateral. Restricted cash related to such agreements was $275,000 and $15,000 as of December 31, 2016 and 2017, respectively.

The following table provides a reconciliation of cash and 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.

	December 31,	
	2016	2017
	(in thousands)	
Cash and cash equivalents	$ 11,593	$ 22,020
Restricted cash	275	15
Total cash, cash equivalents and restricted cash shown in the statements of cash flows	$ 11,868	$ 22,035

Concentrations of Credit Risk

Cash and cash equivalents and marketable securities consist of financial instruments that potentially subject the Company to a concentration of credit risk, to the extent of the amounts recorded on the balance sheets. The Company minimizes the amount of credit exposure by investing cash that is not required for immediate operating needs in money market funds, government obligations and/or commercial paper with short maturities.

The Company regularly reviews the outstanding accounts receivable, including consideration of factors such as the age of the receivable balance. As of December 31, 2016 and 2017, there was no allowance for doubtful accounts deemed necessary. As of December 31, 2016 and 2017, the Company had an accounts receivable balance of $577,000 and $1.6 million, respectively, attributable to the Company's collaboration agreements.

Deferred Offering Costs

The Company has deferred offering costs consisting of legal, accounting and other fees and costs directly attributable to the Company's planned IPO. The deferred offering costs will be offset against

the proceeds received upon the completion of the planned IPO. In the event the planned IPO is terminated, all of the deferred offering costs will be expensed within the Company's statements of operations. As of December 31, 2016, no amounts were deferred. As of December 31, 2017, $545,000 of deferred offering costs were recorded within other long-term assets on the balance sheet.

Property and Equipment, Net

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

Impairment of Long-Lived Assets

The Company reviews long-lived assets, including property and equipment, for impairment whenever events or changes in business circumstances indicate that the carrying amount of the assets may not be fully recoverable. An impairment loss would be recognized when the 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.

The Company did not recognize any impairment charges during the year ended December 31, 2016. During the year ended December 31, 2017, the Company recognized within research and development expenses in the statement of operations an impairment charge of $2.7 million pertaining to manufacturing equipment that had been custom built for the Company, and failed to meet the acceptance criteria; therefore, the Company believes the carrying value may not be recoverable. As of December 31, 2016 and 2017, management believes that no revision to the remaining useful lives or write down of the remaining long-lived assets is required.

Redeemable Convertible Preferred Stock Warrants

The Company accounts for its redeemable convertible preferred stock warrants as a liability, and they are recorded at their estimated fair value, because the warrants may conditionally obligate the Company to transfer assets at some point in the future. At the end of each reporting period, changes in the estimated fair value during the period are recorded in other income (expense), net in the statement of operations. The Company will continue to adjust the liability for changes in estimated fair value until the earlier of the expiration of the warrants, exercise of the warrants, or conversion of the redeemable convertible preferred stock warrants into common stock warrants upon the completion of a liquidation event, including the completion of an IPO.

Leases

The Company enters into lease agreements for its laboratory and office facilities. These leases are classified as operating leases. Rent expense is recognized on a straight-line basis over the term of the lease. Incentives granted under the Company's facilities leases, including allowances to fund leasehold improvements and rent holidays, are recorded as a deferred rent liability and are recognized as reductions to rental expense on a straight-line basis over the remaining term of the lease.

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Notes to Financial Statements

Revenue Recognition

Revenue is recognized when persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, the price is fixed or determinable and collectability is reasonably assured.

For multiple-element arrangements, each deliverable within a multiple-deliverable revenue arrangement is accounted for as a separate unit of accounting if both of the following criteria are met: (i) the delivered item or items has value to the customer on a stand-alone basis; and (ii) for an arrangement that includes a general right of return relative to the delivered item, delivery or performance of the undelivered item is considered probable and substantially in management's control.

The Company recognizes revenue from milestone payments when: (i) the milestone event is substantive and its achievability has substantive uncertainty at the inception of the agreement, and (ii) the Company has completed its performance obligations related to the achievement of the milestone. Milestone payments are considered substantive if all of the following conditions are met: the milestone payment (a) is commensurate with either the Company's performance subsequent to the inception of the arrangement to achieve the milestone or the enhancement of the value of the delivered item or items as a result of a specific outcome resulting from the Company's performance subsequent to the inception of the arrangement to achieve the milestone, (b) relates solely to past performance, and (c) is reasonable relative to all of the deliverables and payment terms (including other potential milestone consideration) within the arrangement.

Determining whether and when these revenue recognition criteria have been satisfied often involves assumptions and judgments that can have a significant impact on the timing and amount of reported revenue. Changes in assumptions or judgments or changes to the elements in an arrangement could cause a material increase or decrease in the amount of revenue that is reported in a particular period.

Under certain collaborative arrangements, the Company is entitled to payments for certain research and development activities and for providing product and other related materials. The Company's policy is to account for such payments by its collaboration partners as collaboration revenue.

Stock-Based Compensation

The Company maintains a stock-based compensation plan as a long-term incentive for employees, consultants, and members of the Company's Board of Directors. The plan allows for the issuance of non-statutory and incentive stock options to employees and non-statutory stock options ("NSOs") to nonemployees.

Share-based payments are measured using fair-value-based measurements and recognized as compensation expense over the service period in which the awards are expected to vest. The Company's fair-value-based measurements of awards to employees and directors as of the grant date utilize the single-option award-valuation approach, and the Company uses the straight-line method for expense attribution. The fair-value-based measurements of options granted to nonemployees are remeasured at each period end until the options vest and are amortized to expense as earned. The valuation model used for calculating the estimated fair value of stock awards is the Black-Scholes option-pricing model. The Black-Scholes model requires the Company to make assumptions and judgments about the variables used in the calculations, including the expected term (weighted-average

period of time that the options granted are expected to be outstanding), the expected volatility of the Company's common stock, the related risk-free interest rate and the expected dividend. The Company also estimates the expected forfeitures of unvested stock awards. Potential forfeitures of awards are estimated based on the Company's historical forfeiture experience. 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.

Research and Development

Research and development costs are expensed as incurred. Research and development expenses consist of costs incurred in performing research and development activities: salaries, employee benefits, laboratory supplies, outsourced research and development expenses, professional services and allocated facilities-related costs. Amounts incurred in connection with collaboration arrangements are also included as a research and development expense.

Nonrefundable advance payments for goods or services that will be used or rendered for future research and development activities are deferred and capitalized and recognized as an expense as the goods are delivered or the related services are performed.

For outsourced research and development expenses, such as professional fees payable to third parties for preclinical studies, clinical trials and research services, and other consulting costs, the Company estimates the expenses based on the services performed, pursuant to contracts with research institutions that conduct and manage preclinical studies, clinical trials and research services on its behalf. The Company estimates these expenses based on discussions with internal management personnel and external service providers as to the progress or stage of completion of services and the contracted fees to be paid for such services. If the actual timing of the performance of services or the level of effort varies from the original estimates, the Company will adjust the accrual accordingly. Payments made to third parties under these arrangements in advance of the performance of the related services by the third parties are recorded as prepaid expenses until the services are rendered.

Income Taxes

The Company provides for income taxes under the asset and liability method. Current income tax expense or benefit represents the amount of income taxes expected to be payable or refundable for the current year. Deferred income tax assets and liabilities are determined based on differences between the financial statement reporting and tax bases of assets and liabilities and net operating loss and credit carryforwards, and are measured using the enacted tax rates and laws that will be in effect when such items are expected to reverse. Deferred income tax assets are reduced, as necessary, by a valuation allowance when management determines it is more likely than not that some or all of the tax benefits will not be realized.

The Company accounts for uncertain tax positions in accordance with Accounting Standards Codification ("ASC") 740-10, *Accounting for Uncertainty in Income Taxes*. The Company assesses all material positions taken in any income tax return, including all significant uncertain positions, in all tax years that are still subject to assessment or challenge by relevant taxing authorities. Assessing an uncertain tax position begins with the initial determination of the position's sustainability and is measured at the largest amount of benefit that is greater than fifty percent likely of being realized upon ultimate settlement. As of each balance sheet date, unresolved uncertain tax positions must be reassessed, and the Company will determine whether (i) the factors underlying the sustainability

assertion have changed and (ii) the amount of the recognized tax benefit is still appropriate. The recognition and measurement of tax benefits requires significant judgment. Judgments concerning the recognition and measurement of a tax benefit might change as new information becomes available.

The Company includes any penalties and interest expense related to income taxes as a component of other income (expense), net and interest expense as necessary.

Fair Value Measurements

Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability, or an exit price, in the principal or most advantageous market for that asset or liability in an orderly transaction between market participants on the measurement date, and established a fair value hierarchy that requires an entity to maximize the use of observable inputs, where available, and minimize the use of unobservable inputs when measuring fair value. The Company determined the fair value of financial assets and liabilities using the fair value hierarchy that describes three levels of inputs that may be used to measure fair value, as follows:

Level 1—Quoted prices in active markets for identical assets and liabilities;

Level 2—Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities; and

Level 3—Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

The carrying amounts of accounts receivable, prepaid expenses, accounts payable, accrued liabilities and accrued compensation and benefits approximate fair value due to the short-term nature of these items.

The fair value of the Company's outstanding loan (See Note 7) is estimated using the net present value of the payments, discounted at an interest rate that is consistent with market interest rate, which is a Level 2 input. The estimated fair value of the Company's outstanding loan approximates the carrying amount, as the loan bears a floating rate that approximates the market interest rate.

Net Income (Loss) Per Share Attributable to Common Stockholders

Basic and diluted net income per share attributable to common stockholders is presented in conformity with the two-class method required for participating securities. The Company considers its redeemable convertible preferred stock to be participating securities. The holders of the Company's redeemable convertible preferred stock are entitled to receive non-cumulative dividends, payable prior and in preference to any dividends on any shares of the Company's common stock. In the event a cash dividend is paid on common stock, the holders of redeemable convertible preferred stock are also entitled to a proportionate share of any such dividend as if they were holders of common stock (on an as-if converted basis). The holders of the redeemable convertible preferred stock do not have a contractual obligation to share in losses. In accordance with the two-class method, earnings allocated to these participating securities and the related number of outstanding shares of the participating securities, which include contractual participation rights in undistributed earnings, have been excluded from the computation of basic and diluted net income per share attributable to common stockholders.

Basic net income (loss) per share attributable to common stockholders is calculated by dividing the net income (loss) attributable to common stockholders by the weighted-average number of shares of

common stock outstanding for the period, without consideration for potential dilutive common shares. Basic net loss per share is the same as diluted net loss per share as the inclusion of all potential dilutive common shares would have been anti-dilutive.

Shares of common stock subject to repurchase are excluded from the computation of weighted-average shares as the continued vesting of such shares is contingent upon the holders' continued service to the Company. For the computation of net income (loss) per share attributable to common stockholders for the years ended December 31, 2016 and 2017, 956,307 and 358,521 shares subject to repurchase, respectively, were excluded from the computation of net income (loss) per share.

Recent Accounting Pronouncements

From time to time, new accounting pronouncements are issued by the Financial Accounting Standards Board ("FASB"), or other standard setting bodies and adopted by the Company as of the specified effective date. Unless otherwise discussed, the impact of recently issued standards that are not yet effective will not have a material impact on the Company's financial statements upon adoption. Under the Jumpstart Our Business Startups Act of 2012, as amended (the "JOBS Act"), the Company meets the definition of an emerging growth company, and has elected the extended transition period for complying with new or revised accounting standards pursuant to Section 107(b) of the JOBS Act.

Recently Adopted Accounting Pronouncements

In March 2016, the FASB issued Accounting Standards Update ("ASU") 2016-09 (Topic 718), *Stock Compensation—Improvements to Employee Share-Based Payment Accounting*, which simplifies the accounting for share-based payment transactions, including the income tax consequences, forfeitures, and statutory tax withholding requirements, as well as classification on the statement of cash flows. For public business entities, ASU 2016-09 is effective for annual periods beginning after December 15, 2016, and interim periods within those annual periods. For all other entities, the amendments are effective for annual periods beginning after December 15, 2017, and interim periods within annual periods beginning after December 15, 2018. Early adoption is permitted for any entity in any interim or annual period. The Company early adopted this guidance effective January 1, 2017, and the adoption did not have a material impact on the Company's financial statements.

New Accounting Pronouncements Not Yet Adopted

In May 2014, the FASB issued ASU No. 2014-09 (Topic 606), *Revenue from Contracts with Customers*. In August 2015, the FASB issued ASU No. 2015-14 (Topic 606), *Revenue from Contracts with Customers: Deferral of the Effective Date*, which delayed the effective date of ASU 2014-09 by one year. ASU 2014-09, as amended, became effective for public business entities for fiscal years beginning after December 15, 2017, and interim periods within those fiscal years. For entities other than public entities, the standard is effective for fiscal years beginning after December 15, 2018, and interim periods beginning after December 15, 2019. Early adoption is permitted. ASU 2014-09 also permits two methods of adoption: retrospectively to each prior reporting period presented (full retrospective method), or retrospectively with the cumulative effect of initially applying the guidance recognized at the date of initial application (the modified retrospective method). The Company will adopt the standard as of January 1, 2019 and is still in the process of evaluating the effect this guidance will have on revenue recognition for its collaboration and license agreements.

The core principle of ASU 2014-09 is that an entity should recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the

entity expects to be entitled in exchange for those goods or services. ASU 2014-09 defines a five-step process to achieve this core principle and, in doing so, it is possible more judgment and estimates may be required within the revenue recognition process than required under existing U.S. generally accepted accounting pronouncements. All of the Company's revenue is currently generated from up-front payments, research and development services, and milestone and contingent payments under its collaboration arrangements. The Company is currently evaluating its collaboration agreements to determine the impact of adopting ASU 2014-09, inclusive of available transitional methods, on its financial statements and related disclosures.

In January 2016, the FASB issued ASU 2016-01 (Topic 825), *Recognition and Measurement of Financial Assets and Financial Liabilities*, which will change how to recognize, measure, present and make disclosures about certain financial assets and financial liabilities. Under ASU 2016-01, if an entity designates a financial liability under the fair value option ("FVO") in accordance with ASC 825, the entity shall measure the financial liability at fair value with qualifying changes in fair value recognized in net income. The entity shall present separately in other comprehensive income the portion of the total change in the fair value of the liability that results from a change in the instrument-specific credit risk. For public business entities, ASU 2016-01 is effective for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. For all other entities, the guidance is effective for fiscal years beginning after December 15, 2018, and interim periods within fiscal years beginning after December 15, 2019. All entities can early adopt the provision related to financial liabilities measured using the FVO in ASC 825 for financial statements of annual or interim periods that have not yet been issued or made available for issuance. The Company does not expect the adoption of this amendment will have a material impact on its financial statements.

In February 2016, the FASB issued ASU 2016-02 (Topic 842), *Leases*, which requires an entity to recognize assets and liabilities for the rights and obligations created by leased assets. ASU 2016-02 is effective for public entities for interim and annual periods beginning after December 15, 2018. For nonpublic entities, the amendments are effective for fiscal years beginning after December 15, 2019. Early adoption is permitted. The Company is currently evaluating how and to what extent ASU 2016-02 will affect the Company's financial position, results of operations, cash flows and related disclosures.

In August 2016, the FASB issued ASU 2016-15 (Topic 230), *Classification of Certain Cash Receipts and Cash Payments* . The new guidance clarifies the classification of certain cash receipts and cash payments in the statement of cash flows, including debt prepayment or extinguishment costs, settlement of contingent consideration arising from a business combination, insurance settlement proceeds, and distributions from certain equity method investees. ASU 2016-15 is effective for annual periods beginning after December 15, 2017. Early adoption is permitted. The Company is in the process of assessing the impact, if any, of this ASU on its financial statements. The Company does not expect that the adoption of this amendment will have a material impact on its financial statements.

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Notes to Financial Statements

3. Fair Value Measurements

The following table sets forth the fair value of the Company's financial assets and liabilities measured on a recurring basis by level within the fair value hierarchy:

	December 31, 2016			
	Total	Level 1	Level 2	Level 3
	(in thousands)			
Assets:				
Money market funds	$ 10,516	$ 10,516	$ –	$ –
Commercial paper	11,243	–	11,243	–
Corporate debt securities	14,353	–	14,353	–
Asset-backed securities	7,830	–	7,830	–
U.S. government agency securities	2,502	–	2,502	–
Total	$ 46,444	$ 10,516	$ 35,928	$ –
Liabilities:				
Redeemable convertible preferred stock warrant liability	$ 1,193	$ –	$ –	$ 1,193
Total	$ 1,193	$ –	$ –	$ 1,193

	December 31, 2017			
	Total	Level 1	Level 2	Level 3
	(in thousands)			
Assets:				
Money market funds	$ 6,578	$ 6,578	$ –	$ –
Commercial paper	7,689	–	7,689	–
Corporate debt securities	800	–	800	–
U.S. government agency securities	3,893	–	3,893	–
Total	$ 18,960	$ 6,578	$ 12,382	$ –
Liabilities:				
Redeemable convertible preferred stock warrant liability	$ 1,708	$ –	$ –	$ 1,708
Total	$ 1,708	$ –	$ –	$ 1,708

Where applicable, the Company uses quoted market prices in active markets for identical assets to determine fair value. This pricing methodology applies to Level 1 investments, which are composed of money market funds.

If quoted prices in active markets for identical assets are not available, then the Company uses quoted prices for similar assets or inputs other than quoted prices that are observable, either directly or indirectly. These investments are included in Level 2 and consist of commercial paper, corporate debt securities, asset-backed securities and U.S. government agency securities. These assets are valued using market prices when available, adjusting for accretion of the purchase price to face value at maturity.

A financial instrument's categorization within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement. The Company's assessment of the significance of a particular input to the fair value measurement in its entirety requires management to make judgments and consider factors specific to the asset or liability.

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In certain cases where there is limited activity or less transparency around inputs to valuation, securities are classified as Level 3 within the valuation hierarchy. Level 3 liabilities that are measured at estimated fair value on a recurring basis consist of the redeemable convertible preferred stock warrant liability. Refer to Note 10 for the valuation techniques used to measure fair value and a description of the inputs and the information used to develop the inputs to the valuation models. Generally, increases or decreases in the fair value of the underlying redeemable convertible preferred stock would result in a directionally similar impact in the fair value measurement of the associated warrant liability. There were no transfers within the hierarchy during the years ended December 31, 2016 and 2017.

The following table sets forth a summary of the changes in the estimated fair value of the Company's redeemable convertible preferred stock warrant liability:

	Redeemable Convertible Preferred Stock Warrant Liability
	(in thousands)
Balance as of December 31, 2015	$ 1,281
Changes in estimated fair value of warrant liability included in other income (expense), net	(88)
Balance as of December 31, 2016	1,193
Estimated fair value of warrants issued	329
Changes in estimated fair value of warrant liability included in other income (expense), net	186
Balance as of December 31, 2017	$ 1,708

4. Cash Equivalents and Available-for-Sale Marketable Securities

Cash equivalents and available-for-sale marketable securities consisted of the following:

	December 31, 2016			
	Amortized Cost Basis	Unrealized Gains	Unrealized Losses	Fair Value
	(in thousands)			
Money market funds	$ 10,516	$ –	$ –	$ 10,516
Commercial paper	11,243	–	–	11,243
Corporate debt securities	14,368	–	(15)	14,353
Asset-backed securities	7,830	1	(1)	7,830
U.S. government agencies	2,504	–	(2)	2,502
Total	46,461	1	(18)	46,444
Less amounts classified as cash equivalents	(10,516)	–	–	(10,516)
Total marketable securities	$ 35,945	$ 1	$ (18)	$ 35,928

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Notes to Financial Statements

	December 31, 2017			
	Amortized Cost Basis	Unrealized Gains	Unrealized Losses	Fair Value
	(in thousands)			
Money market funds	$ 6,578	$ –	$ –	$ 6,578
Commercial paper	7,689	–	–	7,689
Corporate debt securities	800	–	–	800
U.S. government agencies	3,893	–	–	3,893
Total	18,960	–	–	18,960
Less amounts classified as cash equivalents	(18,960)	–	–	(18,960)
Total marketable securities	$ –	$ –	$ –	$ –

For the years ended December 31, 2016 and 2017, the Company recognized no material realized gains or losses on available-for-sale marketable securities.

5. Collaboration and License Agreements

The Company has recognized revenue from its collaboration and license agreements as follows:

	Year Ended December 31,	
	2016	2017
	(in thousands)	
Celgene Corporation ("Celgene"):		
Amortization of up-front payment	$ 27,730	$ 16,694
Research and development services	–	660
Milestones and contingent payments	26,271	27,252
Total	54,001	44,606
Merck KGaA, Darmstadt, Germany:		
Amortization of up-front payment	4,120	4,120
Research and development services	1,610	3,015
Total	5,730	7,135
Total collaboration revenue	$ 59,731	$ 51,741

2014 Celgene Agreement

In September 2014, the Company signed a Collaboration and License Agreement with Celgene (the "2014 Celgene Agreement") to discover and develop bispecific antibodies and/or antibody-drug conjugates ("ADCs"), focused primarily on the field of immuno-oncology, using the Company's proprietary integrated cell-free protein synthesis platform, XpressCF.

Upon signing the 2014 Celgene Agreement, the Company received an up-front, nonrefundable payment totaling $83.1 million. Celgene had the option to extend the collaboration beyond the initial three-year research term in exchange for an additional payment. The Company identified multiple deliverables under the 2014 Celgene Agreement, which included access to certain intellectual property rights, performance of research and development services, and joint steering committee participation. The Company considered the provisions of the multiple-element arrangement guidance in determining whether access to the intellectual property rights under the arrangement had stand-alone value. Based on the Company's expertise in applying its proprietary technology, it concluded that there was no

stand-alone value of the intellectual property rights accessed by Celgene. Consequently, the Company determined that the identified deliverables comprise a single unit of accounting, and the up-front payment was deferred and recognized over the relevant estimated period during which the Company has significant obligations to perform research and development services and participate in joint steering committee activities in the collaboration. Consequently, the Company was recognizing revenues from the up-front payment ratably over an approximate three-year period starting in September 2014.

In March 2015, the Company received a $15.0 million contingent payment ("March 2015 payment") from Celgene under the 2014 Celgene Agreement that provided Celgene a right to access certain of the Company's technology for use in conjunction with certain Celgene intellectual property. In June 2016, the Company received a $25.0 million milestone ("June 2016 payment") upon completion of certain preclinical activities. The March 2015 and June 2016 payments are being recognized as revenue over the remaining portion of the estimated period of the research term. Additionally, in June 2016, the Company earned a $10.0 million substantive milestone for certain manufacturing accomplishments. The entire $10.0 million amount was recognized as revenue when earned, as the Company had completed its performance obligations related to the achievement of the substantive milestone. In September 2017, the Company earned a $10.0 million milestone for certain manufacturing accomplishments, which payment was received from Celgene in October 2017, as part of the Amended and Restated Collaboration and License Agreement with Celgene (the "2017 Celgene Agreement"). The entire $10.0 million amount was recognized as revenue when earned, as the Company had completed its performance obligations related to the achievement of the substantive milestone. As of December 31, 2016 and 2017, there was $39.5 million and $7.1 million, respectively, of deferred revenue related to payments received by the Company under the 2014 Celgene Agreement and 2017 Celgene Agreement, respectively.

Beginning two years after the effective date of the Option Support Agreement and ending upon the expiration of the research term, Celgene, prior to the August 2017 Amended and Restated Collaboration and License Agreement (See 2017 Celgene Agreement), had the exclusive option to acquire the Company, including rights to all programs owned by the Company at the time, at a value based on a pre-specified valuation procedure. Related to Celgene's exclusive option, the Company was subject to operating covenants that prohibited certain actions by the Company without Celgene's prior written consent. The option was terminated in August 2017.

2017 Celgene Agreement

In August 2017, the Company entered into the 2017 Celgene Agreement to refocus its 2014 Celgene Agreement on four programs that are advancing throughout preclinical development, including an ADC program targeting B cell maturation antigen.

Upon signing of the 2017 Celgene Agreement, the Company received an option fee payment of $12.5 million in August 2017 and is eligible to receive a second option fee payment of $12.5 million following the first investigational new drug ("IND") clearance, if any, for one of the four programs, if Celgene desires to maintain its option to acquire the U.S. rights to develop and commercialize a second collaboration program to reach IND status. If Celgene exercises its option to acquire from the Company U.S. rights to a second collaboration program, it will make an option exercise fee payment to the Company, the amount of which depends on which program reaches IND status. The Company determined that the initial $12.5 million payment should be deferred and recognized over the entire potential period during which Celgene has an option to acquire worldwide rights to a second

collaboration program. Consequently, the Company is recognizing revenue from such payment ratably over an approximate three-year period starting in August 2017 and ending in September 2020.

The Company evaluated the terms of the 2017 Celgene Agreement, relative to the 2014 Celgene Agreement, and determined the 2017 Celgene Agreement to be a material modification to the 2014 Celgene Agreement for financial reporting purposes. As a result, the Company determined that the remaining deferred revenue balance of $8.2 million as of the date of entering into the 2017 Celgene Agreement, related to Celgene payments to the Company under the 2014 Celgene Agreement, will also be recognized ratably over an approximate three-year period starting in August 2017 and ending in September 2020. The Company has received and will be eligible to receive financial support for research and development services assigned to the Company by Celgene, based on an agreed-upon level of full-time equivalent personnel effort and related reimbursement rate, which will be recognized as revenue as the related reimbursable activities approved by Celgene and the Company are performed by the Company.

Under the terms of the 2017 Celgene Agreement, the Company is entitled to earn development and regulatory contingent payments for each of the four programs under the collaboration, and royalties on sales of any commercial products that may result from the 2017 Celgene Agreement. As of December 31, 2017, the Company is eligible to receive a potential future payment for manufacturing activities of $10.0 million, which is considered to be a substantive milestone for which the related payment will be recognized as revenue upon achievement. In addition, for licensed products for which Celgene holds worldwide rights, the Company is eligible to receive aggregate milestone and option fee payments of up to $295.0 million for certain licensed products and up to $393.7 million for certain other licensed products under the collaboration, if approved in multiple indications, and, depending on the licensed product, tiered royalties ranging from single digits to low teen percentages on worldwide sales of any commercial products that may result from the 2017 Celgene Agreement. Additionally, for licensed products for which Celgene holds ex-U.S. rights, the Company will also be eligible to receive pre-commercial contingent payments and tiered royalties ranging from mid to high single digit percentages. The contingent payments under the 2017 Celgene Agreement are not considered to be substantive milestones because the receipt of such payments is based solely on the performance of Celgene.

As of December 31, 2017, there was $10.9 million of deferred revenue related to a payment received by the Company under the 2017 Celgene Agreement.

As of December 31, 2017, the Company had a $750,000 receivable from Celgene related to the 2017 Celgene Agreement, which is included in accounts receivable on the balance sheet.

In addition, the Company granted Celgene the right to purchase shares of Company’s stock in certain future financings by the Company. In conjunction with this revision, the option for Celgene to acquire the Company under the 2014 Celgene Agreement was terminated along with restrictions from entering additional collaborations or accessing the public financial markets.

Celgene may terminate the 2017 Celgene Agreement at any time with 120 days’ prior written notice. Either the Company or Celgene has the right to terminate the 2017 Celgene Agreement based on the other party’s uncured material breach, challenge of the validity and enforceability of intellectual property, or bankruptcy.

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Notes to Financial Statements

Merck KGaA, Darmstadt, Germany Agreement

The Company signed a Collaboration Agreement and a License Agreement with Merck KGaA, Darmstadt, Germany in May 2014 and September 2014, respectively, which were entered into in contemplation of each other and therefore treated as a single agreement for accounting purposes. The Collaboration Agreement was terminated upon execution of the License Agreement (the "MDA Agreement"), which agreement is to develop ADCs for multiple cancer targets.

Upon signing the Collaboration Agreement, the Company received an up-front, nonrefundable, non-creditable payment totaling $10.0 million. Upon signing the MDA Agreement, the Company received an additional up-front, nonrefundable payment totaling $10.0 million and will receive financial support for research and development services to be provided by the Company, based on an agreed-upon level of full-time equivalent personnel effort and related reimbursement rate.

The Company identified multiple deliverables under the MDA Agreement, which include access to certain intellectual property rights, performance of research and development services, and joint project team participation. The Company considered the provisions of the multiple-element arrangement guidance in determining whether access to the intellectual property rights under the arrangement has stand-alone value. Based on the Company's expertise in applying its proprietary technology, it concluded that there is no stand-alone value of the intellectual property rights accessed by Merck KGaA, Darmstadt, Germany. Consequently, the Company determined that the identified deliverables comprise a single unit of accounting, and the up-front cash payments will be deferred and recognized over the relevant estimated period during which the Company has significant obligations to perform research and development services and participate in joint project team activities for Merck KGaA, Darmstadt, Germany. Consequently, the Company is recognizing revenues from the up-front payments ratably over an estimated five-year period starting in June 2014. Revenue for research and development services under the MDA Agreement will be recognized as revenue as the related reimbursable activities approved by Merck KGaA, Darmstadt, Germany and the Company are performed by the Company.

The Company is eligible to receive up to $52.5 million for each product developed under the MDA Agreement, primarily from pre-commercial contingent payments. In addition, the Company is eligible to receive tiered royalties ranging from low to mid single digit percentages, along with certain additional one-time royalties, on worldwide sales of any commercial products that may result from the MDA Agreement. The MDA Agreement term expires on a product-by-product and country-by-country basis. Upon expiration, Merck KGaA, Darmstadt, Germany will have a fully paid-up, royalty-free, perpetual, and irrevocable non-exclusive license, with the right to grant sublicenses, under certain Company intellectual property rights. As of December 31, 2016 and 2017, there was $10.0 million and $5.9 million, respectively, of deferred revenue related to payments received by the Company under the MDA Agreement.

Merck KGaA, Darmstadt, Germany may terminate the MDA Agreement at any time with 90 days' prior written notice or upon the inability of the Company to provide Merck KGaA, Darmstadt, Germany access to a specified number of cancer drug targets. Either the Company or Merck KGaA, Darmstadt, Germany has the right to terminate the MDA Agreement based on the other party's uncured material breach or bankruptcy.

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Notes to Financial Statements

6. Property and Equipment, Net

Property and equipment, net, consists of the following:

	December 31,	
	2016	2017
	(in thousands)	
Computer equipment and software	$ 1,298	$ 1,372
Furniture and office equipment	487	492
Laboratory equipment	21,657	21,375
Leasehold improvements	15,648	15,772
Total	39,090	39,011
Less accumulated depreciation and amortization	(20,400)	(25,014)
Total property and equipment, net	$ 18,690	$ 13,997

7. Loan and Security Agreement

In August 2017, the Company entered into a loan and security agreement with Oxford Finance LLC ("Oxford") and Silicon Valley Bank ("SVB") under which it borrowed $15.0 million (the "August 2017 Loan"). The loan is due in 30 monthly installments from March 2019 through its repayment in August 2021, with interest-only monthly payments until March 2019. If certain qualified funding events occur, the loan will be due in 24 monthly installments from September 2019 through its repayment in August 2021, with interest-only payments until September 2019.

The August 2017 Loan is secured by all assets of the Company, excluding intellectual property and certain other assets. The August 2017 Loan contains customary affirmative and restrictive covenants, including with respect to fundamental transactions, the incurrence of additional indebtedness, grant liens, pay any dividend or make any distributions to the Company's holders, make investments, merge or consolidate with any other person, or engage in transactions with its affiliates, but does not include any financial covenants. The loan agreement provides that an event of default will occur if, among other triggers, there occurs any circumstances that could reasonably be expected to result in a material adverse effect on the Company's business, operations or condition, or on its ability to perform its obligations under the loan. The Company has disclosed in Note 1 that there is currently substantial doubt about its ability to continue as a going concern given its continuing operating losses and its current available capital resources, which could be deemed to be an event of default if such condition was considered to have a material adverse effect on the Company's business, operations or condition. As a result, the Company has classified the entire debt balance as a current liability given that a determination of such an event of default is outside of the Company's control. The loan agreement also includes customary representations and warranties, other events of default and termination provisions.

The interest charges on the loan will be based on a floating rate that equals the greater of 7.39% or the sum of the 30-day U.S. Dollar London Interbank Offered Rate ("LIBOR") plus 6.40%. In addition, the Company will make a final payment equal to 3.83% of the original principal amount of the loan, or $574,500, which will be accrued over the term of the loan using the effective-interest method. During the year ended December 31, 2017, the Company recorded interest expense related to this loan of $611,000. In connection with the August 2017 Loan, the Company issued to Oxford and SVB a warrant to purchase 454,820 shares and 227,410 shares, respectively, of Series D-2 redeemable convertible preferred stock at an exercise price of $0.6596 per share (the "2017 Warrant"). If there is a subsequent convertible preferred stock or other senior equity securities financing with a per share price less than

the Series D-2 redeemable convertible preferred per share price, then the warrant shall instead be to purchase such class of shares, based on the per share price of such (see Note 14). The warrants were exercisable from the date of issuance and have a 10-year term. The estimated fair value upon issuance of the 2017 Warrant based on Series D-2 convertible preferred stock was $329,000, which was recorded a redeemable convertible preferred stock warrant liability. The fair value of the warrant at the date of issuance was determined using an Option Pricing Method and was recorded a redeemable convertible preferred stock warrant liability with an offset to debt discount on the associated borrowings on the Company's balance sheet. The debt discount is being amortized to interest expense over the repayment period of the loan using the effective-interest method. As noted above, the Company has classified the entire debt balance as a current liability on its balance sheet as of December 31, 2017. As of December 31, 2017, the Company's scheduled future principal payments for the loan are as follows:

	Amount (in thousands)
Year ending December 31, 2018	$ –
Year ending December 31, 2019	5,000
Year ending December 31, 2020	6,000
Year ending December 31, 2021	4,000
Total future maturities	15,000
Less unamortized debt discount as of December 31, 2017	(366)
Ending debt balance as of December 31, 2017	$ 14,634

8. Commitments and Contingencies

Operating Lease

The Company leases its South San Francisco facility under an operating lease. The landlord provided the Company with an Extended Term Tenant Work Allowance of $919,000 related to tenant improvements under the lease amendment entered in May 2012. The allowance was repaid through November 2016, in the form of an increased base rent amount. In May 2016, the Company exercised an option to extend the lease term of its South San Francisco facility, with fixed rental payments from December 2016 through November 2021. Under the amended lease agreement, the Company has an option to extend the lease term through November 2026. Additionally, the landlord provided the Company with a tenant improvement allowance of $245,000. If the Company elects to access the tenant improvement allowance, the related amount will be repaid through November 2021, in the form of an increased monthly base rent amount. As of December 31, 2017, the Company had not accessed the tenant improvement allowance.

In May 2011, the Company entered into a lease agreement for a facility in San Carlos, California, which in August 2012 was amended to include an adjoining space in the same building, with fixed rental payments through July 31, 2016. In December 2014, the lease term was extended through July 2021. Under the lease agreement, the Company has two three-year options to extend the lease term, potentially through July 2027.

In August 2013, the Company entered into an agreement to sublease a second facility in South San Francisco, California, with fixed rental payments through March 2017. In May 2016, the Company entered into an agreement for a lease on the second facility in South San Francisco, with fixed rental

payments from May 2017 through November 2021, following the end of the sublease term for the same facility. Under the lease agreement, the Company has an option to extend the lease term through November 2026.

In March 2015, the Company entered into an agreement to lease a second facility in San Carlos, California, with fixed rental payments through June 2021. Under the lease agreement, the Company has two three-year options to extend the lease term, potentially through June 2027.

As of December 31, 2017, the Company's future minimum payments under the noncancelable operating leases for the facilities are as follows:

Year Ending December 31,	Amount (in thousands)
2018	$ 3,540
2019	3,655
2020	3,771
2021	3,195
Total future minimum lease payments	$ 14,161

Rent expense was $2.2 million and $3.2 million for the years ended December 31, 2016 and 2017, respectively.

Indemnification

In the ordinary course of business, the Company may provide indemnifications of varying scope and terms to vendors, lessors, business partners, board members, officers, and other parties with respect to certain matters, including, but not limited to, losses arising out of breach of such agreements, services to be provided by the Company, negligence or willful misconduct of the Company, violations of law by the Company, or from intellectual property infringement claims made by third parties. In addition, the Company has entered into indemnification agreements with directors and certain officers and employees that will require the Company, among other things, to indemnify them against certain liabilities that may arise by reason of their status or service as directors, officers or employees. No demands have been made upon the Company to provide indemnification under such agreements, and thus, there are no claims that the Company is aware of that could have a material effect on the Company's balance sheets, statements of operations, or statements of cash flows. The Company currently has directors' and officers' insurance.

9. Related-Party Transactions

Related party transactions with Celgene, which owned 15.4% of the Company's outstanding equity interest as of December 31, 2016 and 2017, respectively, are described in Note 5.

Three directors of the Company are performing consulting services for the Company. Subsequent to his appointment to the Company's Board of Directors, the Company paid $60,000 to one of the directors in each of the years ended December 31, 2016 and 2017. Additionally, such director was granted options to purchase 356,000 shares of the Company's common stock from 2009 to 2015, at the then-current fair values of the common stock ranging from $0.12 to $0.33 per share, related to his consulting services, which vest ratably over four years. As of December 31, 2017, 26,346 shares of these options were unvested. Also, the Company paid a transaction advisory fee of $700,000 and

$450,000 during the years ended December 31, 2016 and 2017, respectively, related to the Celgene agreements to a firm, of which such director is a managing executive. Additional payments, based on a single digit percentage of any future payments, will be made to such transaction advisory firm upon receipt of future payments under the 2017 Celgene Agreement (see Note 5).

The Company paid $30,000 to the second director performing consulting services for the Company in each of the years ended December 31, 2016 and 2017. Additionally, such director was granted an option to purchase 118,667 shares of the Company's common stock in September 2015 at the then-current fair value of the common stock, related to his consulting services, which vests ratably over four years.

The Company paid $25,000 to the third director performing consulting services for the Company in the year ended December 31, 2017.

On August 30, 2010, the Company received a promissory note with recourse from its chief executive officer, which was used to purchase common stock. The principal amount of the note was approximately $200,000, which accrues interest at 0.53%, compounding semiannually. The note can be prepaid without penalty and is due on August 30, 2019. The note and related interest receivable has been recorded as a component of stockholders' deficit. As of December 31, 2016 and 2017, the outstanding balance is approximately $207,000 and $208,000, respectively.

Investment in SutroVax, Inc. ("SutroVax")

In December 2013, the Company and Johnson & Johnson Innovation, through the Johnson & Johnson Development Corporation, provided initial co-funding for a new company, SutroVax. SutroVax leverages the Company's proprietary integrated cell-free protein synthesis platform, XpressCF, to develop novel vaccines for a broad range of disease targets. The Company had a $10,000 and $34,000 receivable due from SutroVax as of December 31, 2016 and 2017, respectively, which was included in accounts receivable on the balance sheet.

In December 2013, the Company purchased 3,000,000 shares of common stock of SutroVax at a purchase price of $0.001 per share for an aggregate purchase price of $3,000. The investment was initially accounted for under the equity method and the investment was reduced to zero as its share of losses exceeded the investment balance. The Company provided initial funding for SutroVax of $250,000, with an additional investment in August 2014 of $250,000, which were both in exchange for a convertible promissory note. In 2015 and 2016, SutroVax completed its $22.0 million Series A preferred stock financings, and at such time the convertible promissory notes were repaid with interest and cancelled. As of December 31, 2016, the Company held an 18.6% common stock ownership interest in SutroVax on a fully-diluted basis, which was recorded at a value of $0 and was accounted for under the cost method.

In 2017, SutroVax completed additional preferred stock financings, in which the Company did not participate. As of December 31, 2017, the Company held a 7.8% common stock ownership interest in SutroVax on a fully-diluted basis, with a carrying value of $0.

SutroVax qualifies as a variable interest entity. However, the Company maintains only shared power to direct the activities that most significantly impact the performance of SutroVax. Therefore, the Company is not considered the primary beneficiary and consolidation is not required.

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10. Redeemable Convertible Preferred Stock and Stockholders' Deficit

Redeemable Convertible Preferred Stock

Redeemable convertible preferred stock, $0.001 par value, as of December 31, 2016 and 2017, consisted of:

	Shares Authorized	Shares Issued and Outstanding	Original Issue Price Per Share	Carrying Value	Liquidation Preference
	(in thousands, except for share and per share amounts)				
Series A	3,503,692	3,503,692	$ 0.5900	$ 1,992	$ 2,067
Series B	24,515,966	24,345,936	0.8822	19,865	21,478
Series C	78,582,049	76,102,337	0.4797	38,035	36,506
Series C-2	8,338,892	8,338,892	0.5996	4,845	5,000
Series D	43,362,233	43,362,233	0.5996	25,900	26,000
Series D-2	18,097,331	18,097,331	0.6596	11,868	11,937
Balance at December 31, 2016	176,400,163	173,750,421		$ 102,505	$ 102,988

	Shares Authorized	Shares Issued and Outstanding	Original Issue Price Per Share	Carrying Value	Liquidation Preference
	(in thousands, except for share and per share amounts)				
Series A	3,503,692	3,503,692	$ 0.5900	$ 1,992	$ 2,067
Series B	24,515,966	24,345,936	0.8822	19,865	21,478
Series C	78,582,049	76,102,337	0.4797	38,035	36,506
Series C-2	8,338,892	8,338,892	0.5996	4,845	5,000
Series D	43,362,233	43,362,233	0.5996	25,900	26,000
Series D-2	18,779,561	18,097,331	0.6596	11,868	11,937
Balance at December 31, 2017	177,082,393	173,750,421		$ 102,505	$ 102,988

The significant rights, preferences and privileges of the redeemable convertible preferred stock are as follows:

Redemption

At the election of certain major investors, the Company will redeem all outstanding shares of preferred stock in three equal annual installments commencing September 26, 2019, by paying in cash an amount per share equal to the original issuance prices of $0.59 per share of Series A redeemable convertible preferred stock, $0.8822 per share of Series B redeemable convertible preferred stock, $0.4797 per share of Series C redeemable convertible preferred stock, $0.5996 per share of Series C-2 redeemable convertible preferred stock, $0.5996 per share of Series D redeemable convertible preferred stock, and $0.6596 per share of Series D-2 redeemable convertible preferred stock, plus 8% of the applicable original issuance prices per annum calculated from the original issuance date of each share of preferred stock.

Additionally, all shares of preferred stock are redeemable in the event of a change in control or sale of substantially all of the assets of the Company. As certain redemption events are outside the

control of the Company, all preferred stock amounts have been presented outside of stockholders' deficit.

The carrying value of the redeemable convertible preferred stock has not been accreted up to its redemption value as no redemption events are considered probable as of December 31, 2017.

Dividends

The holders of preferred stock are entitled to receive, when and as declared by the Board of Directors, dividends at the per annum rate of $0.0472 per share of Series A redeemable convertible preferred stock, $0.07056 per share of Series B redeemable convertible preferred stock, $0.03838 per share of Series C redeemable convertible preferred stock, $0.048 per share of Series C-2 redeemable convertible preferred stock, $0.048 per share of Series D redeemable convertible preferred stock and $0.0528 per share of Series D-2 redeemable convertible preferred stock, prior and in preference to any declaration or payment of a dividend to the common stockholders. Such dividends are not cumulative, and no right to such dividends shall accrue to holders of the preferred stock unless declared by the Board of Directors. Payment of any dividends to the holders of preferred stock shall be on a pro rata, pari passu basis in proportion to the dividend rates set forth above for each series of preferred stock. Following payment of these dividends to the preferred stockholders, any additional dividends will be payable to the holders of the Company's common and preferred stock on an as-if-converted-to-common-stock basis. No dividends have been declared to date.

Liquidation

In the event of any liquidation, dissolution, or winding up of the Company, either voluntary or involuntary, the holders of the preferred stock shall be entitled to receive pro rata, prior and in preference to any distribution to the holders of the common stock, an amount equal to the original issuance prices of each series (in each case, as adjusted for stock splits, stock dividends or distributions, recapitalizations, and similar events) and all declared but unpaid dividends, if any.

After giving effect to the liquidation preferences noted above, all of the remaining assets of the Company shall be distributed to the holders of preferred stock and common stock pro rata based on the number of shares of common stock held by each such holder, treating, for this purpose, all such securities as if they had been converted to common stock immediately prior to the liquidation event. However, if the aggregate amount that the holders of preferred stock are entitled to receive exceeds two times the applicable original issuance prices per share for such series of preferred stock plus any dividends declared but unpaid thereon (the "Maximum Participation Amount"), each holder of preferred stock shall be entitled to receive upon such liquidation the greater of (i) the Maximum Participation Amount and (ii) the amount such holder would have received if all shares of such series of preferred stock had been converted into common stock immediately prior to the liquidation event.

Unless certain major investors elect otherwise, any of the following events shall be treated as a liquidation: (i) any consolidation, merger, acquisition, or any other corporate reorganization in which the stockholders of the Company immediately prior to such event own less than 50% of the voting power of the surviving or successor entity or its parent immediately after such event; (ii) any transaction or series of related transactions in which in excess of 50% of the Company's voting power is transferred; or (iii) any sale, lease, transfer, exclusive license, or other disposition of all or substantially all of the assets of the Company.

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Voting

Each share of redeemable convertible preferred stock is entitled to voting rights equivalent to the number of shares of common stock into which each share can be converted.

The holders of Series C redeemable convertible preferred stock are entitled to elect two directors of the Company, and the holders of Series A redeemable convertible preferred stock and Series B redeemable convertible preferred stock are each entitled to elect one director of the Company. Additionally, holders of common stock are entitled to elect one director of the Company, and all stockholders can elect the balance of the total number of directors of the Company.

Conversion

The conversion price as of December 31, 2017 of each series of redeemable convertible preferred stock listed below is subject to adjustment upon certain dilutive events, including in the event the Company issues certain additional equity securities at a purchase price less than the current conversion price (see Note 14).

Each share of Series D-2 redeemable convertible preferred stock shall be convertible, at the option of the holder thereof, into such number of fully paid and nonassessable shares of common stock as is determined by dividing $0.6596 by the Series D-2 redeemable convertible preferred stock conversion price in effect at the time of conversion. The Series D-2 redeemable convertible preferred stock conversion price as of December 31, 2017 is $0.6596 per share of common stock. The Series D-2 redeemable convertible preferred stock conversion price is subject to adjustment upon certain dilutive events.

Each share of Series D redeemable convertible preferred stock shall be convertible, at the option of the holder thereof, into such number of fully paid and nonassessable shares of common stock as is determined by dividing $0.5996 by the Series D redeemable convertible preferred stock conversion price in effect at the time of conversion. The Series D redeemable convertible preferred stock conversion price as of December 31, 2017 is $0.5996 per share of common stock. The Series D redeemable convertible preferred stock conversion price is subject to adjustment upon certain dilutive events.

Each share of Series C-2 redeemable convertible preferred stock shall be convertible, at the option of the holder thereof, into such number of fully paid and nonassessable shares of common stock as is determined by dividing $0.5996 by the Series C-2 redeemable convertible preferred stock conversion price in effect at the time of conversion. The Series C-2 redeemable convertible preferred stock conversion price as of December 31, 2017 is $0.5996 per share of common stock. The Series C-2 redeemable convertible preferred stock conversion price is subject to adjustment upon certain dilutive events.

Each share of Series C redeemable convertible preferred stock shall be convertible, at the option of the holder thereof, into such number of fully paid and nonassessable shares of common stock as is determined by dividing $0.4797 by the Series C redeemable convertible preferred stock conversion price in effect at the time of conversion. The Series C redeemable convertible preferred stock conversion price as of December 31, 2017 is $0.4797 per share of common stock. The Series C redeemable convertible preferred stock conversion price is subject to adjustment upon certain dilutive events.

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Each share of Series B redeemable convertible preferred stock shall be convertible, at the option of the holder thereof, into such number of fully paid and nonassessable shares of common stock as is determined by dividing $0.8822 by the Series B redeemable convertible preferred stock conversion price in effect at the time of conversion. The Series B redeemable convertible preferred stock conversion price as of December 31, 2017 is $0.6283 per share of common stock. The Series B redeemable convertible preferred stock conversion price is subject to adjustment upon certain dilutive events.

Each share of Series A redeemable convertible preferred stock shall be convertible, at the option of the holder thereof, into such number of fully paid and nonassessable shares of common stock as is determined by dividing $0.59 by the Series A redeemable convertible preferred stock conversion price in effect at the time of conversion. The Series A redeemable convertible preferred stock conversion price as of December 31, 2017 is $0.5227 per share of common stock. The Series A redeemable convertible preferred stock conversion price is subject to adjustment upon certain dilutive events.

Each share of redeemable convertible preferred stock shall automatically be converted into shares of common stock at the then-effective rate applicable to voluntary conversion as described above, upon either (i) the completion of an underwritten public offering at a price of not less than $1.7988 per share (as adjusted for stock splits, stock dividends or distributions, recapitalizations, and similar events) that results in at least $50.0 million in net cash proceeds; or (ii) the written consent of certain major investors.

Warrants

During the period from 2008 to 2012, the Company issued various warrants for the purchase of redeemable convertible preferred stock in connection with debt financings and the issuance of redeemable convertible preferred stock.

In August 2017, the Company issued warrants to Oxford and SVB to purchase an aggregate of 682,230 shares of Series D-2 redeemable convertible preferred stock at an exercise price of $0.6596 per share in connection with the issuance of August 2017 Loan (see Note 7). If there is a subsequent convertible preferred stock or other senior equity securities financing with a per share price less than the Series D-2 redeemable convertible preferred per share price, then the warrant shall automatically convert to a warrant to purchase such class of shares, based on the per share price of such equity (See Note 14). The warrant was exercisable from the date of issuance and has a 10-year term. As of December 31, 2017, the 2017 Warrant to purchase 682,230 shares of Series D-2 redeemable convertible preferred stock was outstanding.

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Notes to Financial Statements

The Company has reserved shares of its Series B, Series C and Series D-2 redeemable convertible preferred stock for issuance upon exercise of the respective warrants. As of December 31, 2016 and 2017, the warrants outstanding and exercisable were as follows:

Stock	Expiration Date	Exercise Price Per Share	Shares as of December 31, 2016	Shares as of December 31, 2017	Estimated Fair Value as of December 31, 2016	Estimated Fair Value as of December 31, 2017
			(in thousands except for share and per share amounts)			
Series B redeemable convertible preferred	June 2018	$ 0.8822	170,030	170,030	$ 100	$ 116
Series C redeemable convertible preferred(1)	July 2020 – June 2022	$ 0.4797	2,479,712	2,479,712	1,093	1,263
Series D-2 redeemable convertible preferred	August 2027	$ 0.6596	–	682,230	–	329
Total					$ 1,193	$ 1,708

(1) 1,791,784 of the Series C redeemable convertible preferred warrants expire at the earlier of (i) the tenth anniversary of issuance; (ii)the consummation of certain change of control events; or (iii) upon the completion of an IPO of the Company's common stock.

The warrants were valued using the Option Pricing Method and were estimated using the following assumptions:

	Year Ended December 31, 2016	Year Ended December 31, 2017
Average expected life (in years)	2.5	2.5
Expected volatility	84.7%	85.3%
Risk-free interest rate	0.83%	1.55%
Expected dividend	–	–

Common Stock

Holders of common stock are entitled to one vote per share on all matters to be voted upon by the stockholders of the Company.

As of December 31, 2017, the Company had reserved common stock, on an if-converted basis, for issuance as follows:

Redeemable convertible preferred stock	184,039,870
Common stock options issued and outstanding	30,329,406
Remaining shares reserved for issuance under 2004 equity Incentive Plan	3,308,488
Warrants to purchase redeemable convertible preferred stock	3,400,681
Warrants to purchase common stock	40,000
Total	221,118,445

11. Stock Options

Under the Company's 2004 Equity Incentive Plan (the "Plan") and associated amendments, 47,767,230 shares of common stock have been reserved for the issuance of incentive stock options

("ISOs"), NSOs, stock bonuses, and rights to acquire restricted stock to employees, officers, directors, and consultants of the Company as of December 31, 2016 and 2017. ISOs granted under the Plan generally vest 25% after the completion of 12 months of service, with the balance vesting in equal monthly installments over the next 36 months of service, and expire ten years from the grant date. NSOs vest per the specific agreement and expire ten years from the date of grant.

The following table summarizes option activity under the Plan:

	Shares Available for Grant	Outstanding Options	Weighted-Average Exercise Price	Weighted-Average Remaining Contract Term (Years)	Aggregate Intrinsic Value
Balances at December 31, 2015	13,118,343	22,302,189	$ 0.32	7.69	$ 3,935
Granted	(9,732,495)	9,732,495	$ 0.39		
Exercised	–	(1,291,548)	$ 0.14		
Canceled	1,807,413	(1,807,413)	$ 0.19		
Balances at December 31, 2016	5,193,261	28,935,723	$ 0.28	7.61	$ 2,685
Granted	(2,265,984)	2,265,984	$ 0.36		
Exercised	–	(491,090)	$ 0.19		
Canceled	381,211	(381,211)	$ 0.34		
Balances at December 31, 2017	3,308,488	30,329,406	$ 0.28	6.84	$ 3,813
Exercisable at December 31, 2017		25,952,335	$ 0.27	6.54	$ 3,589
Vested and expected to vest at December 31, 2017		29,267,084	$ 0.28	6.79	$ 3,761

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 Company's common stock on the date of exercise. For the years ended December 31, 2016 and 2017, the aggregate intrinsic value of stock options exercised was $316,000 and $91,000, respectively, determined at the date of the option exercise.

Employee Stock Options Valuation

The fair value of the shares of common stock underlying stock options was determined by the Company's Board of Directors. Because there was no public market for the Company's common stock, the Board of Directors determined fair value of the common stock at the time of grant of the option by considering a number of objective and subjective factors including important developments in the Company's operations, valuations performed by an independent third party, sales of redeemable convertible preferred stock, actual operating results and financial performance, the conditions in the biotechnology industry and the economy in general, the stock price performance and volatility of comparable public companies, and the lack of liquidity of the Company's common stock, among other factors.

Sutro Biopharma, Inc.

Notes to Financial Statements

For determining stock-based compensation expense, the fair-value-based measurement of each employee stock option was estimated as of the date of grant using the Black-Scholes option-pricing model with assumptions as follows:

	Year Ended December 31,	
	2016	2017
Expected term (in years)	5.7-6.1	5.5-6.1
Expected volatility	58.00%-59.00%	56.52-58.55%
Risk-free interest rate	1.24%-2.09%	1.89-2.18%
Expected dividend	–	–

Expected Term—The expected term represents the period that the stock-based awards are expected to be outstanding. The Company used the "simplified" method to determine the expected term of options granted, which calculates the expected terms as the average of the weighted-average vesting term and the contractual term of the option.

Expected Volatility—Since the Company is not yet a public company and does not have any trading history for its common stock, the expected volatility was estimated based on the average historical volatilities of common stock of comparable publicly traded entities over a period equal to the expected term of the stock option grants. The Company will continue to apply this process until a sufficient amount of historical information regarding the volatility of its own stock price becomes available.

Risk-Free Interest Rate—The risk-free interest rate is based on the U.S. Treasury yield in effect at the time of grant for zero-coupon U.S. Treasury notes with maturities approximately equal to the expected term of the options.

Expected Dividend—The Company has never paid dividends on its common stock. Therefore, the Company used an expected dividend yield of zero.

Using the Black-Scholes option-valuation model, the weighted-average estimated grant-date fair value of employee stock options granted during the years ended December 31, 2016 and 2017 was $0.21 and $0.20 per share, respectively. The total fair value of options vested during the years ended December 31, 2016 and 2017 was $942,000 and $1.6 million, respectively.

Non-Employee Stock-Based Compensation Expense

The Company remeasures the estimated fair value of the unvested portion of the award each period, until the award is fully vested. The Company believes that the fair value of the stock options is more reliably measurable than the fair value of services received. The fair value of options granted to non-employees was estimated using the Black-Scholes method. The stock-based compensation expense related to non-employees for the years ended December 31, 2016 and 2017 was $49,000 and $69,000, respectively.

Sutro Biopharma, Inc.

Notes to Financial Statements

Stock-Based Compensation Expense

Total stock-based compensation expense recognized was as follows:

	Year Ended December 31,	
	2016	2017
	(in thousands)	
Research and development	$ 104	$ 119
General and administrative	864	1,272
Total	$ 968	$ 1,391

As of December 31, 2017, there was approximately $1.7 million of total unrecognized compensation cost related to the unvested stock options granted under the Company's Plan. The remaining unrecognized compensation cost is expected to be recognized over a weighted-average period of 2.2 years.

Early Exercise of Options

Certain stock options granted under the Company's stock option Plan provide option holders the right to elect to exercise unvested options in exchange for restricted common stock. A summary of the restricted stock shares issued under the Company's Plan is as follows:

	Shares
Balance as of December 31, 2015	1,367,998
Vested	(746,300)
Balance as of December 31, 2016	621,698
Vested	(536,017)
Balance as of December 31, 2017	85,681

The shares are subject to repurchase by the Company at the original exercise price in the event the optionee's employment is terminated either voluntarily or involuntarily. The repurchase right to these shares generally lapses 25% after one year, and the remainder lapses ratably over three years thereafter. The Company treats cash received from the exercise of unvested options as a refundable deposit, shown as a liability in its balance sheets. As of December 31, 2016 and 2017, the Company included cash received for the early exercise of options of approximately $99,000 and $14,000, respectively, which is included in other noncurrent liabilities. Amounts are transferred from liabilities into common stock and additional paid-in-capital as the shares vest.

2017 Call Option Plan

In February 2017, the Company adopted a 2017 Call Option Plan to grant selected employees, officers, directors and consultants (collectively, the "Participants") options to purchase shares of the common stock of SutroVax, an unconsolidated investee of the Company (see Note 9). The Company has reserved 450,000 shares of SutroVax common stock as of December 31, 2017 for issuance under the program. The call options vest 25% on each of January 1, 2017, 2018, 2019, and 2010, and expire one year from the vesting date.

Using the Black-Scholes option-valuation model, the call options are measured at fair value on grant date and at each reporting period prior to their vesting, with cost recognized over the requisite

service period as compensation cost. Any changes in the fair value subsequent to the vesting date are recognized in other income (expense), net in the statement of operations. Call options covering 420,000 shares have been granted with an exercise price of $0.76 per share, with 105,000 shares vested and exercised during the year ended December 31, 2017. Call options covering 315,000 shares were outstanding and unvested as of December 31, 2017. The amounts recognized as compensation expense and other income (expense) related to the 2017 Call Option Plan were $79,000 and $109,000, respectively, for the year ended December 31, 2017.

12. Income Taxes

No provision for income taxes was recorded for the years ended December 31, 2016 and 2017. The Company has established a full valuation allowance against its deferred tax assets due to the uncertainty surrounding the realization of such assets. All losses to date have been incurred domestically.

The effective tax rate of the Company's provision (benefit) for income taxes differs from the federal statutory rate as follows:

	Year Ended December 31,	
	2016	2017
Federal statutory rate	34.0%	34.0%
State tax	0.0	0.0
Change in valuation allowance	53.0	20.8
Tax credits	(21.6)	3.8
Remeasurement of federal tax rate change	0.0	(63.4)
Other	(65.4)	4.8
Total	0.0%	0.0%

The components of the Company's deferred tax assets consist of the following:

	December 31	
	2016	2017
	(in thousands)	
Deferred tax assets:		
Net operating loss carryforwards	$ 21,649	$ 23,820
Research and development credits	8,314	11,244
Deferred revenue	12,457	3,004
Accruals and other	1,605	1,103
Total deferred tax assets	44,025	39,171
Valuation allowance	(43,175)	(39,135)
Net deferred tax assets	850	36
Deferred tax liability	(850)	(36)
Net deferred tax assets	$ –	$ –

Realization of the future tax benefits is dependent on the Company's ability to generate sufficient taxable income within the carryforward period. Due to the Company's history of operating losses and future sources of taxable income, the Company believes that the recognition of the deferred tax assets

is currently not more likely than not to be realized and, accordingly, have provided a full valuation allowance against net deferred tax assets. For the year ended December 31, 2016, the net increase in the valuation allowance was $900,000, and for the year ended December 31, 2017, the net decrease in the valuation allowance was $4.0 million.

As of December 31, 2017, the Company had federal net operating loss carryforwards of $91.6 million and federal general business credits from research and development expenses totaling $7.4 million, as well as state net operating loss carryforwards of $65.2 million and state research and development credits of $7.8 million.

The federal net operating loss carryforwards will expire at various dates beginning in 2032, and the federal credits will expire at various dates beginning in 2023, if not utilized. The state net operating loss carryforwards will expire at various dates beginning in 2030, if not utilized. The state research and development tax credits can be carried forward indefinitely.

Under the Tax Reform Act, the amount of benefit from net operating loss carryforwards may be impaired or limited in certain circumstances. Events which cause limitations in the amount of net operating losses that the Company may utilize in any one year include, but are not limited to, a cumulative ownership change of more than 50%, as defined, over a three-year testing period. Such limitations may result in limitations upon the Company's ability to utilize the losses in future periods. The Company has performed a Section 382 study for the period of June 16, 2003 through December 31, 2016, and concluded that it is more likely than not that the Company experienced an ownership change on April 9, 2007. This change does not limit the Company's ability to use its existing net operating losses within the carryforward period provided by the Internal Revenue Code, subject to availability of taxable income. However, if there is subsequent event or further change in ownership, these losses may be subject to limitations, resulting in their expiration before they can be utilized.

The Company files U.S. federal and state tax returns with varying statutes of limitations. Due to net operating loss and credit carryforwards, all of the tax years since inception through the 2017 tax year remain subject to examination by the U.S. federal and some state authorities. The actual amount of any taxes due could vary significantly depending on the ultimate timing and nature of any settlement. The amount of unrecognized tax benefits, if recognized, that would affect the effective tax rate is $1.6 million and $2.3 million as of December 31, 2016 and 2017, respectively. One or more of these unrecognized tax benefits could be subject to a valuation allowance if and when recognized in a future period, which could impact the timing of any related effective tax rate benefit. The Company believes that the amount by which the unrecognized tax benefits may increase or decrease within the next 12 months is not estimable.

The Company has elected to recognize, if incurred, interest and penalties related to liabilities for uncertain tax positions as a part of income tax expense. No such interest and penalties have been incurred to date.

The Company determines its uncertain tax positions based on a determination of whether and how much of a tax benefit taken by the Company in its tax filings is more likely than not to be sustained upon examination by the relevant income tax authorities.

Sutro Biopharma, Inc.

Notes to Financial Statements

A reconciliation of the beginning and ending amounts of unrecognized tax benefits is as follows:

	December 31	
	2016	2017
	(in thousands)	
Gross unrecognized tax benefit at January 1	$ 1,205	$ 1,635
Additions for tax positions taken in the current year	430	670
Gross unrecognized tax benefit at December 31	$ 1,635	$ 2,305

Impact of The Tax Cuts and Jobs Act

On December 22, 2017, the Tax Cuts and Jobs Act of 2017 (the "Tax Act") was signed into law. The Tax Act reduces the corporate tax rate from a top marginal rate of 35% to a flat rate of 21%. The Tax Act also contains a number of provisions that may impact the Company in future years. Although the Tax Act is generally effective January 1, 2018, U.S. GAAP requires recognition of the tax effects of new legislation during the reporting period that includes the enactment date, which was December 22, 2017. On December 22, 2017, the Securities Exchange Committee staff issued Staff Accounting Bulletin No. 118 ("SAB 118") which provides guidance on accounting for the tax effects of the Tax Reform Act. SAB 118 provides a measurement period that should not extend beyond one year from the Tax Reform Act enactment date for companies to complete the accounting under ASC 740, *Income Taxes*.

The primary impact of the Tax Act resulted from the re-measurement of deferred tax assets and liabilities due to the change in the corporate tax rate, reducing the Company's deferred tax assets by $12.3 million with a corresponding reduction in its valuation allowance, which had no effect on the Company's effective tax rate. This decrease in deferred tax assets and corresponding adjustment to the valuation allowance represent the Company's reasonable estimates based on the corporate tax rate reduction to 21% for tax years beginning after December 31, 2017 and are provisional amounts within the meaning of SAB 118.

Although the tax rate reduction is known, since the Tax Reform Act was recently finalized and ongoing guidance and accounting interpretation is expected over the next twelve months, the Company expects to collect and prepare necessary data, and interpret any additional guidance to complete a more detailed analysis of the effect of the Tax Reform Act on the underlying deferred taxes and as such, the amounts recorded as of December 31, 2017 are provisional. However, the Company anticipates that any adjustment to provisional amounts recorded would be fully offset by a corresponding change to the Company's valuation allowance.

Sutro Biopharma, Inc.

Notes to Financial Statements

13. Net Income (Loss) Per Share Attributable to Common Stockholders

The following table sets forth the computation of the Company's basic and diluted net income (loss) per share attributable to common stockholders.

	Year Ended December 31,	
	2016	2017
	(in thousands, except share and per share amounts)	
Numerator:		
Net income (loss)	$ 1,702	$ (19,688)
Noncumulative dividends on redeemable convertible preferred stock	(1,702)	–
Net income (loss) attributable to common stockholders, basic and diluted	$ –	$ (19,688)
Denominator:		
Shares used in computing net income per share attributable to common stockholders, basic and diluted	14,804,949	16,265,874
Net income (loss) per share attributable to common stockholders:		
Basic	$ –	$ (1.21)
Diluted	$ –	$ (1.21)

The following common stock equivalents were excluded from the computation of diluted net income (loss) per share for the year ended December 31, 2016 as net income attributable to common stock holders was nil, and for the year ended December 31, 2017 because including them would have been antidilutive:

	Year Ended December 31,	
	2016	2017
Redeemable convertible preferred stock	184,039,870	184,039,870
Options to purchase common stock	28,935,723	30,329,406
Warrants to purchase redeemable convertible preferred stock	2,718,452	3,400,681
Warrants to purchase common stock	40,000	40,000
Early exercised shares of common stock	621,698	85,681
Total	216,355,743	217,895,638

Unaudited Pro Forma Net Loss Per Share

Pro forma basic and diluted net loss per share of common stock have been computed to give effect to the assumed conversion of the redeemable convertible preferred stock, the assumed net exercise of certain redeemable convertible preferred stock warrants and common stock warrants and the assumed conversion of the remaining redeemable convertible preferred stock warrants into common stock warrants upon the completion of a qualifying IPO of the Company's common stock. Also, the numerator in the pro forma basic and diluted net loss per share calculation has been adjusted to remove gains or losses resulting form the remeasurement of the redeemable convertible preferred stock warrant liability.

Sutro Biopharma, Inc.

Notes to Financial Statements

The following table sets forth the computation of the Company's pro forma basic and diluted net loss per share of common stock.

	Year Ended December 31, 2017 (in thousands, except share and per share amounts): (unaudited)
Numerator:	
Net loss	$ (19,688)
Change in fair value of redeemable convertible preferred stock warrant liability	(186)
Pro forma net loss, basic and diluted	$ (19,502)
Denominator:	
Weighted-average common shares used in net loss per share, basic and diluted	
Pro forma adjustment to reflect assumed cashless exercise of certain redeemable convertible preferred stock warrants and common stock warrants	
Pro forma adjustment to reflect assumed conversion of redeemable convertible preferred stock	
Pro forma weighted-average shares of common stock, basic and diluted	
Pro forma net loss per share, basic and diluted	$

14. Subsequent Events

Management has reviewed and evaluated material subsequent events from the balance sheet date of December 31, 2017, through the date of the report of the Independent Registered Public Accounting Firm. No subsequent events have been identified for disclosure, other than as noted below.

On May 25, 2018, the Company raised $31.6 million in funding through the sale and issuance of 99,044,781 shares of a newly authorized series of preferred stock, Series E redeemable convertible preferred stock, at $0.3193 per share. The Series E redeemable convertible preferred stock per share price was less than the conversion price per share in each of the Company's prior redeemable convertible preferred stock financings, and therefore, each prior conversion price was lowered by applying a broad-based weighted average adjustment. Additionally, in connection with the August 2017 Loan, the Company issued to Oxford and SVB a warrant to purchase 454,820 shares and 227,410 shares, respectively, of Series D-2 redeemable convertible preferred stock at an exercise price of $0.6596 per share (the "2017 Warrant"). Given that the price per share of the Series E redeemable convertible preferred stock was less than the Series D-2 redeemable convertible preferred per share price, the 2017 Warrant converted into a warrant to purchase a total of 1,409,333 shares of Series E redeemable convertible preferred stock at an exercise price of $0.3193 per share.

Shares

Common Stock

PROSPECTUS

Joint Book-running Managers

Cowen **Piper Jaffray**

Co-managers

JMP Securities **Wedbush PacGrow**

, 2018

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 13. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION.

The following table sets forth all costs and expenses, other than underwriting discounts and commissions, paid or payable by the Registrant in connection with the sale of the common stock being registered. All amounts shown are estimates except for the Securities and Exchange Commission, or SEC, registration fee, the Financial Industry Regulatory Approval, or FINRA, filing fee and the Nasdaq Global Market listing fee:

	Amount Paid or To Be Paid
SEC registration fee	$ *
FINRA filing fee	*
The Nasdaq Global Market listing fee	*
Printing and engraving expenses	*
Legal fees and expenses	*
Accounting fees and expenses	*
Blue Sky, qualification fees and expenses	*
Transfer agent and registrar fees and expenses	*
Miscellaneous expenses	*
Total	$ *

* To be completed by amendment.

ITEM 14. INDEMNIFICATION OF DIRECTORS AND OFFICERS.

Section 145 of the Delaware General Corporation Law, or DGCL, authorizes a court to award, or a corporation's board of directors to grant, indemnity to directors and officers under certain circumstances and subject to certain limitations. The terms of Section 145 of the DGCL are sufficiently broad to permit indemnification under certain circumstances for liabilities, including reimbursement of expenses incurred, arising under the Securities Act of 1933, as amended, or the Securities Act.

As permitted by the DGCL, the Registrant's restated certificate of incorporation to be effective in connection with the completion of this offering contains provisions that eliminate the personal liability of its directors for monetary damages for any breach of fiduciary duties as a director, except liability for the following:

- any breach of the director's duty of loyalty to the Registrant or its stockholders;
- acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;
- under Section 174 of the DGCL (regarding unlawful dividends and stock purchases); or
- any transaction from which the director derived an improper personal benefit.

As permitted by the DGCL, the Registrant's restated bylaws to be effective in connection with the completion of this offering, provide that:

- the Registrant is required to indemnify its directors and executive officers to the fullest extent permitted by the DGCL, subject to limited exceptions;
- the Registrant may indemnify its other employees and agents as set forth in the DGCL;

- the Registrant is required to advance expenses, as incurred, to its directors and executive officers in connection with a legal proceeding to the fullest extent permitted by the DGCL, subject to limited exceptions; and
- the rights conferred in the restated bylaws are not exclusive.

Prior to the completion of this offering, the Registrant intends to enter into indemnification agreements with each of its current directors and executive officers to provide these directors and executive officers additional contractual assurances regarding the scope of the indemnification set forth in the Registrant's restated certificate of incorporation and restated bylaws and to provide additional procedural protections. There is no pending litigation or proceeding involving a director or executive officer of the Registrant for which indemnification is sought. Reference is also made to the underwriting agreement to be filed as Exhibit 1.1 to this registration statement, which provides for the indemnification of executive officers, directors and controlling persons of the Registrant against certain liabilities. The indemnification provisions in the Registrant's restated certificate of incorporation, restated bylaws and the indemnification agreements entered into or to be entered into between the Registrant and each of its directors and executive officers may be sufficiently broad to permit indemnification of the Registrant's directors and executive officers for liabilities arising under the Securities Act.

The Registrant has directors' and officers' liability insurance for securities matters.

ITEM 15. RECENT SALES OF UNREGISTERED SECURITIES.

The following lists set forth information regarding all securities sold or granted by the Registrant from July 9, 2015 through July 9, 2018 that were not registered under the Securities Act, and the consideration, if any, received by the Registrant for such securities:

(a) Stock Option Grants

From July 9, 2015 through July 9, 2018, the Registrant has granted to its employees, directors, consultants and other service providers options to purchase an aggregate of 18,824,779 shares of common stock under its 2004 Stock Plan, or 2004 Plan, with exercise prices ranging from $0.33 to $0.41 per share.

From July 9, 2015 through July 9, 2018, employees, directors, consultants and other service providers of the Registrant exercised options granted under the 2004 Plan for an aggregate of 2,524,546 shares of common stock with exercise prices ranging from $0.05 to $0.39 per share for an aggregate exercise price of $417,672.

(b) Warrants to Purchase Preferred Stock

In August 2017, the Registrant issued to two accredited investors warrants to purchase an aggregate of 682,230 shares of the Registrant's Series D-2 redeemable convertible preferred stock at a per share exercise price of $0.6596, for an aggregate consideration of approximately $450,000. In connection with the initial closing of the Series E redeemable preferred stock financing, these warrants converted into warrants to purchase a total of 1,409,333 shares of Series E redeemable convertible preferred stock at an exercise price of $0.3193 per share. These warrants will convert into warrants to receive shares of the Registrant's common stock upon the completion of this offering.

(c) Preferred Stock

In May and June 2018, the Registrant issued and sold to eight accredited investors an aggregate of 104,548,547 shares of Series E redeemable convertible preferred stock, at a purchase price of $0.3193 per share, for aggregate consideration of $33,382,351. In connection with the completion of this offering, these shares of Series E redeemable convertible preferred stock will convert into shares of the Registrant's common stock.

Unless otherwise stated, the sales of the above securities were deemed to be exempt from registration under the Securities Act in reliance on Section 4(a)(2) of the Securities Act (or Regulation D or Regulation S promulgated thereunder), or Rule 701 promulgated under Section 3(b) of the Securities Act, as transactions by an issuer not involving any public offering or pursuant to benefit plans and contracts relating to compensation as provided under Rule 701. The recipients of the securities in each of these transactions represented their intentions to acquire the securities for investment only and not with a view to or for sale in connection with any distribution thereof, and appropriate legends were placed on the stock certificates issued in each of the foregoing transactions.

None of the foregoing transactions involved any underwriters, underwriting discounts or commissions or any public offering, and the Registrant believes each transaction was exempt from the registration requirements of the Securities Act as stated above. All recipients of the foregoing transactions either received adequate information about the Registrant or had access, through their relationships with the Registrant, to such information. Furthermore, the Registrant affixed appropriate legends to the share certificates and instruments issued in each foregoing transaction setting forth that the securities had not been registered and the applicable restrictions on transfer.

ITEM 16. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES.

(a) Exhibits.

Exhibit Number	Description of Document
1.1*	Form of Underwriting Agreement.
3.1*	Amended and Restated Certificate of Incorporation, as amended to date, as currently in effect.
3.2*	Form of Restated Certificate of Incorporation to be effective upon the completion of this offering.
3.3*	Bylaws, as currently in effect.
3.4*	Form of Restated Bylaws to be effective upon the completion of this offering.
4.1*	Form of Common Stock Certificate.
4.2*	Third Amended and Restated Investors' Rights Agreement, dated May 24, 2018, by and among the Registrant and certain of its stockholders.
4.3+	Form of Warrant to Purchase Shares of Common Stock.
4.4*	Form of Warrant to Purchase Series B Redeemable Convertible Preferred Stock.
4.5+	Forms of Warrant to Purchase Series C Redeemable Convertible Preferred Stock.
4.6+	Form of Warrant to Purchase Series D-2 Redeemable Convertible Preferred Stock.
5.1*	Opinion of Fenwick & West LLP.
10.1*	Form of Indemnity Agreement.
10.2+	2004 Stock Plan, as amended, and forms of award agreements.
10.3+	2017 Call Option Plan and forms of award agreements.
10.4*	2018 Equity Incentive Plan, to become effective on the date immediately prior to the date the registration statement is declared effective, and forms of award agreements.

Exhibit Number	Description of Document
10.5*	2018 Employee Stock Purchase Plan, to become effective on the date the registration statement is declared effective, and forms of award agreements.
10.6*	Employment Agreement, effective as of , by and between the Registrant and William J. Newell.
10.7*	Employment Agreement, effective as of , by and between the Registrant and Arturo Molina.
10.8*	Employment Agreement, effective as of , by and between the Registrant and Trevor Hallam.
10.9+	Edgewater Business Park Lease, dated May 18, 2016, by and between the Registrant and HCP, Inc.
10.10*	Standard Industrial/Commercial Multi-Tenant Lease-Net, dated May 2011, by and between the Registrant and Lydia Tseng and/or Alemany Plaza LLC, as amended.
10.11*†	Amended and Restated Collaboration and License Agreement, dated August 2, 2017, by and among Celgene Corporation, Celgene Alpine Investment Company II, LLC, and the Registrant, as amended.
10.12*†	License Agreement, dated September 16, 2014, by and between Merck KGaA, Darmstadt, Germany and the Registrant, as amended.
10.13*†	Amended and Restated Exclusive Agreement, dated October 3, 2007, between The Board of Trustees of Leland Stanford Junior University and Fundamental Applied Biology, Inc., as amended.
10.14+	Loan and Security Agreement, dated August 4, 2017, among Oxford Finance LLC, Silicon Valley Bank, and the Registrant.
21.1+	Subsidiaries of the Registrant.
23.1*	Consent of Ernst & Young, LLP, an independent registered public accounting firm.
23.2*	Consent of Fenwick & West LLP (included in Exhibit 5.1).
24.1*	Power of Attorney (included in the signature page to this registration statement).

* To be filed by amendment.

\+ Previously submitted.

† Registrant will omit and file separately with the SEC portions of the exhibit pursuant to a confidential treatment request under Rule 406 promulgated under the Securities Act.

(b) Financial Statement Schedules.

No financial statement schedules are provided because the information called for is not required or is shown either in the financial statements or notes.

ITEM 17. UNDERTAKINGS.

The undersigned Registrant hereby undertakes to provide to the underwriters at the completion specified in the underwriting agreement, certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

The undersigned Registrant hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant has duly caused this registration statement on Form S-1 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of South San Francisco, State of California, on the day of , 2018.

SUTRO BIOPHARMA, INC.

By: _____
William J. Newell
Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints William Newell and Edward Albini, and each of them, as his true and lawful attorneys-in-fact, proxies and agents, each with full power of substitution and resubstitution and full power to act without the other, for him in any and all capacities, to sign any and all amendments to this registration statement (including post-effective amendments or any abbreviated registration statement and any amendments thereto filed pursuant to Rule 462(b) increasing the number of securities for which registration is sought), and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact, proxies and agents full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully for all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact, proxies and agents, or their or his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement on Form S-1 has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
William J. Newell	Chief Executive Officer (Principal Executive Officer)	, 2018
Edward Albini	Chief Financial Officer (Principal Accounting and Financial Officer)	, 2018
John G. Freund, M.D.	Director	, 2018
Daniel Janney	Director	, 2018
V. Bryan Lawlis, Ph.D.	Director	, 2018
Joseph M. Lobacki	Director	, 2018
Daniel H. Petree	Director	, 2018
Michael Ross, Ph.D.	Director	, 2018
Armen B. Shanafelt, Ph.D.	Director	, 2018