XOMA Corp
Form 10-K
March 07, 2019

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

ANNUAL REPORT PURSUANT TO SECTION 13 or 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2018

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
FOR THE TRANSITION PERIOD FROM TO

Commission File Number 0-14710

XOMA CORPORATION

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization)	52-2154066 (I.R.S. Employer Identification No.)
2200 Powell Street, Suite 310, Emeryville, California (Address of principal executive offices)	94608 (Zip Code)

Registrant's telephone number, including area code: (510) 204-7200

Securities registered pursuant to Section 12(b) of the Act: Common Stock, Par Value $0.0075 Per Share; Common stock traded on the Nasdaq stock market

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the Registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. YES NO

Indicate by check mark if the Registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. YES NO

Indicate by check mark whether the Registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. YES NO

Indicate by check mark whether the Registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the Registrant was required to submit such files). YES NO

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405) is not contained herein, and will not be contained, to the best of Registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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

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

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

Indicate by check mark whether the Registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). YES NO

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the Registrant, based on the closing price of the shares of common stock on June 30, 2018, was $131,035,280.

Number of shares of Registrant's Common Stock outstanding as of March 4, 2019 was 8,710,797.

Portions of the Registrant's Definitive Proxy Statement relating to the Company's Annual Meeting of Stockholders are incorporated by reference into Part III of this Report.

XOMA Corporation

2018 FORM 10-K ANNUAL REPORT

TABLE OF CONTENTS

This annual report on Form 10-K includes trademarks, service marks and trade names owned by us or others. "XOMA," the XOMA logo and all other XOMA product and service names are registered or unregistered trademarks of XOMA Corporation or a subsidiary of XOMA Corporation in the United States and in other selected countries. All trademarks, service marks and trade names included or incorporated by reference in this annual report are the property of their respective owners.

i

PART I

This Annual Report on Form 10-K contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and the Private Securities Litigation Reform Act of 1995, which are subject to the "safe harbor" created by those sections. Forward-looking statements are based on our management's beliefs and assumptions and on information currently available to them. In some cases, you can identify forward-looking statements by words such as "may," "will," "should," "could," "would," "expects," "plans," "anticipates," "believes," "estimates," "projects," "pred "intend" and similar expressions intended to identify forward-looking statements. Examples of these statements include, but are not limited to, statements regarding: our future operating expenses, our future losses, the extent to which our issued and pending patents may protect our products and technology, the potential of our existing product candidates to lead to the development of commercial products, our ability to receive potential milestone or royalty payments under license and collaboration agreements and the timing of receipt of those payments. These statements are based on assumptions that may not prove accurate. Actual results could differ materially from those anticipated due to certain risks inherent in the biotechnology industry and for our licensees engaged in the development of new products in a regulated market. Among other things: our product candidates subject to out-license agreements are still being developed, and our licensees' may require substantial funds to continue development which may not be available; we may not be successful in entering into out-license agreements for our product candidates; if our therapeutic product candidates do not receive regulatory approval, our third-party licensees will not be able to manufacture and market them; products or technologies of other companies may render some or all of our product candidates noncompetitive or obsolete; we do not know whether there will be, or will continue to be, a viable market for the products in which we have an ownership or royalty interest; even once approved, a product may be subject to additional testing or significant marketing restrictions, its approval may be withdrawn or it may be voluntarily taken off the market; we and our licensees are subject to various state and federal healthcare related laws and regulations that may impact the commercialization of our product candidates and could subject us to significant fines and penalties; and certain of our technologies are in-licensed from third parties, so our capabilities using them are restricted and subject to additional risks. These and other risks, including those related to current economic and financial market conditions, are contained principally in Item 1, Business; Item 1A, Risk Factors; Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations; and other sections of this Annual Report on Form 10-K. Factors that could cause or contribute to these differences include those discussed in Item 1A, Risk Factors, as well as those discussed elsewhere in this Annual Report on Form 10-K.

Forward-looking statements are inherently uncertain and you should not place undue reliance on these statements, which speak only as of the date that they were made. These cautionary statements should be considered in connection with any written or oral forward-looking statements that we may issue in the future. We do not undertake any obligation to release publicly any revisions to these forward-looking statements after completion of the filing of this Annual Report on Form 10-K to reflect later events or circumstances or to reflect the occurrence of unanticipated events.

Item 1. Business

Overview and Strategy

XOMA Corporation ("XOMA"), a Delaware corporation, is a biotech enterprise with an extensive history of discovering and developing innovative therapeutic candidates derived from its unique platform of antibody technologies. In March 2017, we transformed our business model to become a royalty aggregator where we focus on expanding our programs

in which we own a right to receive future milestone and royalty payments. These programs and related milestone and royalty interests come from drug candidates discovered by our licensees and partners from their use of our proprietary antibody discovery platform and from product candidates we discovered from that same platform, and advanced prior to out-licensing. In all cases, the licensees have assumed the responsibility for subsequent development, regulatory approval and commercialization. When we transitioned to the royalty-aggregator model we significantly reduced corporate infrastructure in order to minimize the cash burn associated with the period until we expect to experience revenue inflow from these potential milestones and royalties. We expect that a significant portion of our future revenue will be based on payments we may receive for milestones and royalties related to these programs.

Our strategy has a two-part approach to building value. The first component of the strategy is to allow our current pipeline of product candidates to advance over time from the investments made by our licensees. We built this pipeline by out-licensing our technology platform and our drug candidate products to licensees or collaborator partners who assumed the responsibilities of later stage development, regulatory approval and commercialization. We refer to these programs as “fully funded” since our partners pay the development and commercialization costs. As licensees advance these programs, we are eligible for potential milestone and royalty payments. Fundamental to this component is our focus on maintaining an efficient and low corporate cost structure for the reasons outlined above.

The second component of our strategy is to expand our pipeline by acquiring potential milestone and royalty revenue streams on additional drug product candidates from third parties. Expanding our pipeline through these acquisitions can allow for further diversification across therapeutic areas and development stages. Our ideal target acquisitions are in pre-commercial stages of development, have an expected long duration of market exclusivity, high revenue potential, and are partnered with a large pharmaceutical or biopharmaceutical enterprise. In September of 2018, we closed our first acquisition and added seven new programs to our fully-funded asset pipeline by acquiring a partial interest position in the rights to potential milestone and royalty payments associated with immuno-oncology antibodies currently being developed by Merck Sharp & Dohme Corp. ("Merck") and Incyte Europe Sarl ("Incyte") under collaboration agreements with Agenus, Inc. and certain affiliates (collectively "Agenus").

The following charts demonstrate the diversification of our fully-funded asset pipeline across therapeutic areas and development stages.

Selected Programs Underlying Our Core Pipeline

Historically, we have licensed or provided research and development collaboration services to world-class organizations, such as Novartis Pharma AG ("Novartis") in pursuit of new antibody products under which we are eligible to receive potential future milestone payments and royalties. The following is a summary of material license and collaboration agreements that represent a significant component of our core pipeline.

Novartis – Anti-CD40 Antibody

In September 2015, we and Novartis Vaccines and Diagnostics, Inc. ("NVDI"), further amended our 2008 Amended and Restated Research, Development and Commercialization Agreement, relating to anti-CD40 antibodies. Under this agreement, NVDI is solely responsible for the development and commercialization of the antibodies and products containing the antibodies arising from this program. The parties agreed to reduce the royalty rates that we are eligible to receive on sales of NVDI's clinical stage anti-CD40 antibodies ("CFZ533"). These royalties are tiered based on sales levels and now range from a mid-single digit percentage rate to a low double-digit percentage rate.

Our right to royalty payments expires on the later of the expiration of any licensed patent covering each product or 10 years from the first commercial sale of each product. Novartis is conducting early clinical testing of CFZ533 in several indications.

Novartis – Gevokizumab and IL-1

In August 2017, we and Novartis entered into multiple license agreements. Under the first license agreement (the "XOMA-052 License Agreement"), we granted Novartis an exclusive, worldwide, royalty-bearing license to gevokizumab ("VPM087") (an early clinical stage product candidate) and related know-how and patents. Under the terms of the XOMA-052 License Agreement, Novartis will be solely responsible for the development and commercialization of VPM087 and products containing such antibody.

Under the XOMA-052 License Agreement, we received total consideration of $30.0 million in 2017 for the license and rights granted to Novartis. Of the total consideration, $15.7 million was paid in cash and $14.3 million (equal to €12.0 million) was paid by Novartis Institutes for Biomedical Research, Inc. ("NIBR"), on our behalf, to settle our loan with Les Laboratories Servier ("Servier"). In addition, NIBR extended the maturity date on our debt to Novartis to September 30, 2022. We also received $5.0 million related to the sale of 539,131 shares of our common stock, at a price per share of $9.2742. Based on the achievement of pre-specified criteria, we are eligible to receive up to $438.0 million in development, regulatory and commercial milestones. We are also eligible to receive royalties on sales of licensed products, which are tiered based on sales levels and range from a high single digit percentage rate to a low double-digit percentage rate. This program is in early clinical testing.

Under the second license agreement (the "IL-1 Target License Agreement"), we granted Novartis non-exclusive licenses to our intellectual property covering the use of IL-1 beta targeting antibodies in the treatment and prevention of cardiovascular disease and other diseases and conditions, and an option to obtain an exclusive license (the "Exclusivity Option") to such intellectual property for the treatment and prevention of cardiovascular disease. We also granted Novartis the right of first negotiation with respect to certain transactions relating to the licensed intellectual property.

Under the IL-1 Target License Agreement, we received an upfront cash payment of $10.0 million. In addition, we are eligible to receive low single-digit royalties on canakinumab sales in cardiovascular indications.

In October 2018, Novartis disclosed that it received a Complete Response Letter ("CRL") from the Food and Drug Administration ("FDA") regarding the supplemental Biologics License Application for cardiovascular risk reduction related to canakinumab. In December 2018, Novartis withdrew the European marketing application for canakinumab for cardiovascular risk reduction.

Unless terminated earlier, the XOMA-052 License Agreement and IL-1 Target License Agreement will remain in effect, on a country-by-country and product-by-product basis, until Novartis' royalty obligations end. The two agreements contain customary termination rights relating to material breach by either party. Novartis also has a unilateral right to terminate the XOMA-052 License Agreement on a product-by-product and country-by-country basis or in its entirety on six months' prior written notice. Under the IL-1 Target License Agreement, Novartis has a unilateral right to terminate the agreement on a product-by-product and country-by-country basis or in its entirety upon a prior written notice.

Novartis – Anti-TGF Antibody

In September 2015, we and Novartis International Pharmaceutical Ltd. ("Novartis International") entered into a license agreement (the "License Agreement") under which we granted Novartis International an exclusive, worldwide, royalty-bearing license to our anti-TGF- antibody program ("NIS793"). Novartis International is solely responsible for the development and commercialization of the antibodies and products containing the antibodies arising from this program.

Under the License Agreement, we received a $37.0 million upfront fee, and are eligible to receive up to a total of $480.0 million in development, regulatory and commercial milestones. We also are eligible to receive royalties on sales of licensed products, which are tiered based on sales levels and range from a mid-single digit percentage rate to a low double-digit percentage rate. This program is currently in early clinical testing.

Rezolute

On December 6, 2017, we entered into a license agreement with Rezolute, Inc. (formerly AntriaBio, Inc.) ("Rezolute") pursuant to which we granted an exclusive global license to Rezolute to develop and commercialize X358 (now

RZ358), a Phase 2 product candidate, for all indications. We and Rezolute also entered into a common stock purchase agreement.

Under the terms of the license agreement, Rezolute is responsible for all development, regulatory, manufacturing and commercialization activities associated with RZ358 and is required to make certain clinical, regulatory and annual net sales milestone payments to us of up to $232.0 million in the aggregate based on the achievement of pre-specified criteria. Rezolute is also obligated to pay us royalties ranging from the high single digits to the mid-teens based upon annual net sales of RZ358. Rezolute is obligated to take customary steps to advance RZ358, including using diligent efforts to commence the next clinical study for RZ358 by a certain deadline and to meet certain spending requirements on an annual basis for the program until a marketing approval application for RZ358 is accepted by the FDA. Rezolute's obligation to pay royalties with respect to a particular RZ358 product and country will continue for the longer of the date of expiration of the last valid patent claim covering the product in that country, or twelve years from the date of the first commercial sale of the product in that country.

Under the terms of the license agreement, Rezolute is required to pay us a low single-digit royalty on sales of Rezolute's other products from its existing programs, currently in preclinical and early clinical stages. Rezolute's obligation to pay royalties with respect to a particular Rezolute product and country will continue for the longer of twelve years from the date of the first commercial sale of the product in that country or for so long as Rezolute or its licensee is selling such product in such country, provided that such royalty will terminate upon the termination of the licensee's obligation to make payments to Rezolute based on sales of such product in such country.

We also granted Rezolute an option through June 1, 2019 for an exclusive license for their choice of one of our preclinical insulin receptor monoclonal antibody fragments, including X129. If Rezolute exercises the option, we will be eligible for an upfront option fee and additional clinical, regulatory and annual net sales milestone payments to us of up to $237.0 million in the aggregate based on the achievement of pre-specified criteria as well as royalties ranging from a high single digit percentage rate to a low double-digit percentage rate based on annual net sales. The license agreement contains customary termination rights relating to material breach by either party. Rezolute also has a unilateral right to terminate the license agreement in its entirety on ninety-days' notice at any time. We have the right to terminate the license agreement if Rezolute challenges the licensed patents.

In March 2018, we and Rezolute amended the license agreement and common stock purchase agreement. Pursuant to the as-amended terms of the license agreement and common stock purchase agreement, Rezolute is required to pay us $6.0 million in cash, to issue us $8.5 million worth of its common stock, and to issue us 7,000,000 shares of its common stock, contingent on the completion of its financing activities. Further, in the event that Rezolute does not complete a financing that raises at least $20.0 million in aggregate gross proceeds ("Qualified Financing") by March 31, 2019 (the "2019 Closing"), it shall issue to us an additional number of shares of its common stock equal to $8.5 million divided by the weighted average of the closing bid and ask prices or the average closing prices of Rezolute's common stock on the ten-day trading period prior to March 31, 2019. Finally, if Rezolute is unable to complete a Qualified Financing by March 31, 2020, it will be obliged to pay us $15.0 million in order to maintain the license. Under the common stock purchase agreement, Rezolute granted us the right and option to sell the greater of (i) 5,000,000 shares of common stock or (ii) one third of the aggregate shares held by us upon failure by Rezolute to list its shares of its common stock on the Nasdaq Stock Market or a similar national exchange on or prior to December 31, 2018.

During the year ended December 31, 2018, Rezolute closed a debt financing activity for gross proceeds of $4.0 million, which triggered the Initial Closing, and completed an Interim Financing Closing, as defined in the common stock purchase agreement. These financing activities resulted in receipt of 8,093,010 shares of Rezolute's common stock and cash of $0.5 million. Under the amended license agreement, we are also entitled to receive $0.3 million of reimbursable technology transfer expenses from Rezolute. On January 7, 2019, we and Rezolute further amended the license agreement and common stock purchase agreement. The license agreement was amended to eliminate the requirement that equity securities be issued to us upon the closing of the Qualified Financing (as defined in the license agreement) and to replace it with a requirement that Rezolute: (1) make five cash payments to us totaling $8.5 million following the closing of a Qualified Financing on or before specified staggered future dates through September 2020 (the "Future Cash Payments"); and (2) provide for early payment of the Future Cash Payments (only until the above referenced $8.5 million is reached) by making cash payments to us equal to 15% of the net proceeds of each future financing following the closing of the Qualified Financing, with such payments to be credited against any remaining unpaid Future Cash Payments in reverse order of their future payment date. In accordance with the terms of the license agreement, we received additional $5.5 million in cash upon the closing of the Qualified Financing.

In addition, the license agreement amendment revised the amount Rezolute is required to expend on development of RZ358 and related licensed products and revised provisions with respect to Rezolute's diligence efforts in conducting clinical studies. Lastly, the common stock purchase agreement was amended to remove certain provisions related to the issuance of equity to us in accordance with the new provisions regarding the Future Cash Payments in the license agreement. Specifically, the common stock purchase agreement was amended to provide XOMA the right to sell up to

5,000,000 shares of Rezolute common stock currently held by us, back to Rezolute if it fails to list its shares of common stock on the Nasdaq Stock Market or a similar national exchange on or prior to December 31, 2019. Only 2,500,000 shares may be sold back to Rezolute during calendar year 2020. Any such shares may be sold back to Rezolute at the average of the closing bid and asked prices of its common stock quoted on its principal trading market on the date of such put option exercise.

Takeda

In November 2006, we entered into a collaboration agreement with Takeda under which we agreed to discover and optimize therapeutic antibodies against multiple targets selected by Takeda.

Under the terms of this agreement, we may receive additional milestone payments aggregating up to $19.0 million relating to one undisclosed product candidate and low single-digit royalties on future sales of all products subject to this license. Our right to milestone payments expires on the later of the receipt of payment from Takeda of the last amount to be paid under the agreement or the cessation by Takeda of all research and development activities with respect to all program antibodies, collaboration targets or

collaboration products. Our right to royalties expires on the later of 13.5 years from the first commercial sale of each royalty-bearing discovery product or the expiration of the last-to-expire licensed patent.

In February 2009, we expanded our existing collaboration to provide Takeda with access to multiple antibody technologies, including a suite of research and development technologies and integrated information and data management systems. We may receive milestones of up to $3.3 million per discovery product candidate and low single-digit royalties on future sales of all antibody products subject to this license. Our right to milestone payments expires on the later of the receipt of payment from Takeda of the last amount to be paid under the agreement or the cessation by Takeda of all research and development activities with respect to all program antibodies, collaboration targets or collaboration products. Our right to royalties expires on the later of 10 years from the first commercial sale of such royalty-bearing discovery product or the expiration of the last-to-expire licensed patent.

Ology Bioservices

On November 4, 2015, we entered into an asset purchase agreement with Ology Bioservices, Inc. (“Ology Bioservices”) (formerly Nanotherapeutics Inc.) (the “Ology Bioservices Purchase Agreement”), under which Ology Bioservices agreed to acquire our biodefense business and related assets. Under the terms of this agreement, we are eligible to receive a 15% royalty on net sales of any future Ology Bioservices products covered by or involving the related patents or know-how. Further details of the Ology Bioservices Purchase Agreement are provided in the section below, “Sale of Biodefense Assets and Manufacturing Facility.”

Acquisitions

Agenus Royalty Purchase Agreement

On September 20, 2018, we entered into a Royalty Purchase Agreement (the “Royalty Purchase Agreement”) with Agenus. Under the Royalty Purchase Agreement, we purchased from Agenus the right to receive 33% of the future royalties due to Agenus from Incyte (net of certain royalties payable by Agenus to a third party) and 10% of all future developmental, regulatory and sales milestones on sales of six Incyte immuno-oncology assets, with the exception of an expected near-term milestone associated with the entry of INCAGN2390 (anti-TIM-3) into the clinical trial. In addition, we purchased from Agenus the right to receive 33% of the future royalties due to Agenus from Merck and 10% of all future developmental, regulatory and sales milestones on sales of an undisclosed Merck immuno-oncology product currently in clinical development. Pursuant to the Royalty Purchase Agreement, our share in future potential development, regulatory and commercial milestones is up to $59.5 million and the royalties have no limit. Under the terms of the Royalty Purchase Agreement, we paid Agenus $15.0 million. We have financed $7.5 million of the purchase price with a three-year term loan under our Loan and Security Agreement with Silicon Valley Bank (“SVB”) dated May 7, 2018.

Proprietary Product Candidates

We have a pipeline of unique monoclonal antibodies and technologies that we intend to attempt to license to pharmaceutical and biotechnology companies to further their clinical development. A summary of these product candidates is provided below:

- X213 (formerly LFA 102) is a first-in-class allosteric inhibitor of prolactin action. It is a humanized IgG1-Kappa monoclonal antibody that binds to the extracellular domain of the human prolactin receptor with high affinity at an allosteric site. The antibody has been shown to inhibit prolactin-mediated signaling, and it is potent and similarly active against several animal and human prolactin receptors.
-

XMetA is an insulin receptor-activating antibody designed to provide long-acting reduction of hyperglycemia in Type 2 diabetic patients, potentially reducing the advancement to a number of insulin injections needed to control their blood glucose levels.

- IL-2 targets interleukin 2 and has long been recognized as an effective therapy for metastatic melanoma and renal cell carcinoma, but it has serious dose-limiting toxicities that prevent broad clinical use. We have generated novel antibodies that, when given with IL-2, are intended to steer IL-2 to enhance its positive impact with less toxicity, potentially improving the therapeutic index over standard IL-2 therapy.
- PTH1R is an anti-parathyroid receptor pipeline that includes several unique functional antibody antagonists targeting PTH1R, a G-protein-coupled receptor involved in the regulation of calcium metabolism. These antibodies have shown promising efficacy in in vivo studies and could potentially address unmet medical needs, including primary hyperparathyroidism and humoral hypercalcemia of malignancy (“HHM”). HHM is present in many advanced cancers and is caused by high serum calcium due to increased levels of the PTH1R ligand PTH-related peptide (“PTHrP”). Current HHM treatments often fall short and many cancer patients die from ‘metabolic death'. Our PTH1R antibodies could be beneficial for the treatment of HHM.

Technologies Available for Non-Exclusive License

We have a unique set of antibody discovery, optimization and development technologies available for licensing, including:

- ADAPT™ (Antibody Discovery Advanced Platform Technologies): proprietary human antibody phage display libraries, integrated with yeast and mammalian display, which can be integrated into antibody discovery programs through license agreements. We believe access to ADAPT™ Integrated Display offers a number of benefits because it enables the diversity of phage libraries to be combined with accelerated discovery due to rapid immunoglobulin ("IgG") reformatting and fluorescence-activated cell sorting based screening using yeast and mammalian display. This increases the probability of success in finding rare and unique functional antibodies directed to targets of interest.
- ModulX™: technology which allows modulation of biological pathways using monoclonal antibodies and offers insights into regulation of signaling pathways, homeostatic control, and disease biology. Using ModulX™, we have generated product candidates with novel mechanisms of action that specifically alter the kinetics of interaction between molecular constituents (e.g. receptor-ligand). ModulX™ technology enables expanded target and therapeutic options and offers a unique approach in the treatment of disease.
- OptimX™ technologies:
  - Human Engineering™ ("HE™"): a proprietary humanization technology that allows modification of non-human monoclonal antibodies to reduce or eliminate detectable immunogenicity and make them suitable for medical purposes in humans. The technology uses a unique method developed by us, based on analysis of the conserved structure-function relationships among antibodies. The method defines which residues in a non-human variable region are candidates to be modified. The result is an HE™ antibody with preserved antigen binding, structure and function that has eliminated or greatly reduced immunogenicity. HE™ technology was used in development of gevokizumab (VPM087) and certain other antibody products.
  - Targeted Affinity Enhancement™ ("TAE™"): a proprietary technology involving the assessment and guided substitution of amino acids in antibody variable regions, enabling efficient optimization of antibody binding affinity and selectivity. TAE™ generates a comprehensive map of the effects of amino acid mutations in the complementarity-determining region likely to impact binding. The technology has been licensed to a number of companies.

Sale of Biodefense Assets and Manufacturing Facility

Ology Bioservices

On November 4, 2015, we entered the Ology Bioservices Purchase Agreement with Ology Bioservices, under which Ology Bioservices agreed to acquire our biodefense business and related assets (including certain contracts with the U.S. government), and to assume certain liabilities of XOMA. As part of that transaction, the parties, subject to the satisfaction of certain conditions, entered into an intellectual property license agreement (the "Ology Bioservices License Agreement"), under which we agreed to license to Ology Bioservices certain intellectual property rights related to the purchased assets. Under the Ology Bioservices License Agreement, we were eligible for up to $4.5 million of cash payments and 23,008 shares of common stock of Ology Bioservices, based upon Ology Bioservices achieving certain specified future operational objectives. In addition, we are eligible to receive a 15% royalty on net sales of any future Ology Bioservices products covered by or involving the related patents or know-how. Our right to royalties continues until the expiration of the last-to-expire licensed patent.

In February 2017, we executed an Amendment and Restatement to both the Ology Bioservices Purchase Agreement and Ology Bioservices License Agreement primarily to (i) remove the obligation to issue 23,008 shares of common stock of Ology Bioservices under the Ology Bioservices Purchase Agreement, and (ii) revise the payment schedule related to the timing of the $4.5 million cash payments due to us under the Ology Bioservices License Agreement. Of the $4.5 million, $3.0 million was contingent upon Ology Bioservices achieving certain specified future operating objectives. In the first quarter of 2017, we were entitled to receive $1.6 million under the agreement that was received

in quarterly payments through September 2018. In the third quarter of 2017, Ology Bioservices achieved the specified operating objectives and we earned the $3.0 million milestone fee that was received in monthly payments through July 2018. Of the total $4.6 million owed to us, we received $2.4 million during the year ended December 31, 2018, and $2.2 million during the year ended December 31, 2017, which was recognized as other income in our consolidated statement of operations and comprehensive (loss) income. No further payments remain under the agreement, but we are still eligible to receive royalties in the future.

Sale of Future Revenue Streams

Royalty Acquisition Agreements

On December 21, 2016, we entered into two Royalty Interest Acquisition Agreements (together, the "Royalty Acquisition Agreements") with HealthCare Royalty Partners II, L.P. ("HCRP"). Under the first Royalty Acquisition Agreement, we sold our right to receive milestone payments and royalties on future sales of products subject to a license agreement, dated August 18, 2005, between XOMA and Pfizer, Inc. ("Pfizer") (formerly Wyeth) for an upfront cash payment of $6.5 million, plus potential additional payments totaling $4.0 million in the event three specified net sales milestones are met by Pfizer in 2017, 2018 and 2019. The 2017 sales milestone was not achieved. Based on estimated sales for 2018, the 2018 sales milestone was not achieved. We remain eligible to receive up to $2.0 million if specified net sales milestones are achieved in 2019. Under the second Royalty Acquisition Agreement entered into in December 2016, we sold all rights to royalties under an Amended and Restated License Agreement dated October 27, 2006 between XOMA and Shire Plc. (formerly Dyax, Corp.) for a cash payment of $11.5 million.

Debt Agreements

Novartis

In connection with the collaboration between XOMA and Novartis AG (then Chiron Corporation), a secured note agreement was executed in May 2005. The note agreement is secured by our interest in the collaboration and was due and payable in full on June 21, 2015. On June 19, 2015, we and NVDI, who assumed the note agreement, agreed to extend the maturity date of our secured note agreement from June 21, 2015 to September 30, 2015, which was then subsequently extended to September 30, 2020. On September 22, 2017, in connection with the XOMA-052 License Agreement with Novartis, we and NIBR, who assumed the note agreement from NVDI, executed an amendment to the note agreement under which we further extended the maturity date of the note to September 30, 2022. At December 31, 2018, the outstanding principal balance under this note agreement totaled $15.2 million.

Silicon Valley Bank Loan Agreement

In May 2018, we executed a Loan and Security Agreement (the "Loan Agreement") with SVB. Under the Loan Agreement, upon our request, SVB may make advances available to us of up to $20.0 million. We may borrow advances under the Term Loan from May 7, 2018 (the "Effective Date") until the earlier of March 31, 2020 or an event of default. The interest rate will be calculated at a rate equal to the greater of (i) 4.75%, and (ii) 0.25% plus the prime rate as reported from time to time in The Wall Street Journal.

In connection with the Loan Agreement, we issued a warrant to SVB which is exercisable in whole or in part for up to an aggregate of 6,332 shares of common stock with an exercise price of $23.69 per share (the "Warrant"). The Warrant may be exercised on a cashless basis and is exercisable within 10 years from the date of issuance or upon the consummation of certain acquisitions of XOMA.

In September 2018, we borrowed $7.5 million under the Loan Agreement in connection with the Agenus royalty purchase agreement.

In March 2019, we issued a second warrant to SVB which is exercisable in whole or in part for up to an aggregate of 4,845 shares of common stock with an exercise price of $14.71 per share. The new warrant may be exercised on a cashless basis and is exercisable within 10 years from the date of issuance or upon the consummation of certain acquisitions of XOMA.

Servier

In December 2010, in connection with the collaboration agreement entered into with Servier, we executed a loan agreement with Servier (the “Servier Loan Agreement”), which provided for an advance of up to €15.0 million (or $19.5 million at the exchange rate on the date of funding). The loan was secured by an interest in XOMA’s intellectual property rights to all gevokizumab (VPM087) indications worldwide, excluding certain rights in the United States and Japan.

On August 25, 2017, NIBR settled the Servier Loan Agreement in cash by paying directly to Servier $14.3 million, which represented the outstanding balance of the loan based on a euro to dollar exchange rate of 1.1932. The funds that NIBR paid directly to Servier were a portion of the upfront payment due to us under the XOMA-052 License Agreement. As a result of the debt being fully paid, the intellectual property securing the Servier Loan Agreement was released.

Hercules Loan and Security Agreement

In February 2015, we entered into a Loan and Security Agreement with Hercules Technology Growth Capital, Inc., (the "Hercules Loan Agreement") under which we borrowed $20.0 million.

On March 21, 2017, the Hercules Term Loan was paid in full and we were not required to pay the 1% prepayment charge due pursuant to the terms of the loan.

Research and Development

Our research and development expenses include costs of personnel, supplies, facilities and equipment, consultants, third-party costs and other expenses related to preclinical and clinical testing.

Prior to 2017, our research and development activities can be divided into those related to our internal projects and those related to collaborative and contract arrangements, which are reimbursed by our collaborators. In March 2017, we initiated a corporate reorganization to discontinue internal product development and terminated our clinical programs as of June 30, 2017, both of which significantly reduced our research and development expenses.

Competition

The biotechnology and pharmaceutical industries are subject to continuous and substantial technological change. Some of the drugs our licensees are developing may compete with existing therapies or other drugs in development by other companies. Furthermore, academic institutions, government agencies and other public and private organizations conducting research may seek patent protection with respect to potentially competing products or technologies and may establish collaborative arrangements with our competitors. There can be no assurance that developments by others will not render our, or our licensees', products or technologies obsolete or uncompetitive.

Additionally, our recently-undertaken royalty aggregator model faces competition on at least two fronts. First, there are other companies, funds and other investment vehicles seeking to aggregate royalties or provide alternative financing to development-stage biotechnology and pharmaceutical companies. The competitive companies, funds and other investment vehicles may have a lower target rate of return, a lower cost of capital or access to greater amounts of capital and thereby may be able to acquire assets that we are also targeting for acquisitions. Second, existing or potential competitors to our partners' and licensees' products, particularly large pharmaceutical companies, may have greater financial, technical and human resources than our licensees. Accordingly, these competitors may be better equipped to develop, manufacture and market products. Many of these companies also have extensive experience in preclinical testing and human clinical trials, obtaining FDA and other regulatory approvals and manufacturing and marketing pharmaceutical products.

For a discussion of the risks associated with competition, see below under "Item 1A. Risk Factors."

Government Regulation

The research and development, manufacturing and marketing of pharmaceutical products are subject to regulation by numerous governmental authorities in the United States and other countries. We and our partners and licensees, depending on specific activities performed, are subject to these regulations. In the United States, pharmaceuticals are subject to regulation by both federal and various state authorities, including the FDA. The Federal Food, Drug and Cosmetic Act and the Public Health Service Act govern the testing, manufacture, safety, efficacy, labeling, storage, record keeping, approval, advertising and promotion of pharmaceutical products and there are often comparable regulations that apply at the state level. There are similar regulations in other countries as well. For both currently

marketed and products in development, failure to comply with applicable regulatory requirements can, among other things, result in delays, the suspension of regulatory approvals, as well as possible civil and criminal sanctions. In addition, changes in existing regulations could have a material adverse effect on us or our partners.

For a discussion of the risks associated with government regulations, see below under “Item 1A. Risk Factors.”

Intellectual Property

Intellectual property is important to our business and our future income streams will depend in part on our ability to obtain issued patents, and our partners' and licensees' ability to operate without infringing on the proprietary rights of others. We hold and have filed applications for a number of patents in the United States and internationally to protect our products and technology. We also have obtained or have the right to obtain licenses to, or income streams based on, certain patents and applications filed by others. However, the patent position of biotechnology companies generally is highly uncertain and consistent policy regarding the breadth of allowed claims has not emerged from the actions of the U.S. Patent and Trademark Office with respect to biotechnology patents. Accordingly, no assurance can be given that our, or our partners' or licensees' patents will afford protection against competitors with similar products or others will not obtain patents claiming aspects similar to those covered by our, or our partners' or licensees' patent applications. Below is a list of our patents and patent applications related to our programs:

Licensee/Partner	Program	Representative Patents/Applications	Subject matter	Expected expiry
Novartis	Anti-IL-1b			
		US 7,531,166	Gevokizumab and other antibodies and antibody fragments with similar binding properties for IL-1	2027
		US 7,582,742		
		EP 1 899 378		
		US 7,695,718	Methods of treating Type 2 diabetes or Type 2 diabetes-induced diseases or conditions with high affinity antibodies and antibody fragments that bind to IL-1	
		US 8,101,166		
		US 8,586,036	Methods of treating gout with certain doses of IL-1 binding antibodies or binding fragments	2027
		US 9,163,082		
		US 8,637,029	Pharmaceutical compositions comprising anti-IL-1 binding antibodies or fragments for reducing acute coronary syndrome in a subject with a history of myocardial infarction.	2028

		JP 5763625		
Novartis	Anti-TGFb			2030 2032
		US 8,569,464	TGF antibodies and methods of use thereof	
		US 9,145,458		2036
		US 9,714,285		
		US 10,167,334	Combination therapy using an inhibitor of TGFb and an inhibitor of PD-1 for treating or preventing recurrence of cancer	
Novartis	Anti-CD40	US 8,828,396*	Silent Fc variants of anti-CD40 antibodies	2031
		US 9,944,698	Insulin receptor-modulating antibodies having the functional properties of RZ358	2030
Rezolute	Anti-INSR	EP 2 480 254		
		JP 5849050		
		WO2016/141111	Methods of treating or preventing post-prandial hypoglycemia after gastric bypass surgery using a negative modulator antibody to the insulin receptor	2036

9

Ology Bio	Anti-BoNT	US 8,821,879 EP 2 473 191	Coformulations of anti- botulinum neurotoxin antibodies	2030
PrlA Pharma	Anti-PRLR	US 7,867,493 EP 2 059 535	Prolactin receptor antibodies	2027
Various	Bacterial cell expression/ Phage display libraries	US 8,546,307 EP 2 344 686 US 7,094,579 EP 2 060 628	XOMA phage display library components	2022
Actively seeking out license	Anti-PTH1R	WO2018/026748	Parathyroid Hormone Receptor 1 Antibodies and Uses Thereof	2037
Actively seeking out license	Anti-IL2	WO2018/064255**	Interleukin-2 Antibodies and Uses Thereof	2037

* Novartis-owned patent

**Jointly-owned with Medical University of South Carolina Foundation for Research Development

If certain patents issued to others are upheld or if certain patent applications filed by others are issued and upheld, our partners and licensees may require certain licenses from others to develop and commercialize certain potential products incorporating our technology. There can be no assurance that such licenses, if required, will be available on acceptable terms.

We protect our proprietary information, in part, by confidentiality agreements with our employees, consultants and partners. These parties may breach these agreements, and we may not have adequate remedies for any breach. To the extent that we or our consultants or partners use intellectual property owned by others, we may have disputes with our consultants or partners or other third parties, as to the rights in related or resulting know-how and inventions.

Concentration of Risk

Our business model is dependent on third parties achieving specified development milestones and product sales. Our pipeline currently includes over 40 fully-funded programs from which we could potentially receive royalties if the programs achieve marketability. Novartis is developing several of the programs in our pipeline. While we do not expect the discontinuation of any one program would have a material impact on our business, the discontinuation of all programs by Novartis could have a material effect on our business and financial condition.

Organization

We were incorporated in Delaware in 1981 and became a Bermuda-exempted company in December 1998. Effective December 31, 2011, we changed our jurisdiction of incorporation from Bermuda to Delaware and changed our name from XOMA Ltd. to XOMA Corporation. When referring to a time or period before December 31, 1998 or after December 31, 2011, the terms “Company” and “XOMA” refer to XOMA Corporation, a Delaware corporation; when

referring to a time or period between December 31, 1998 and December 31, 2011, such terms refer to XOMA Ltd., a Bermuda company.

Our principal executive offices are located at 2200 Powell Street, Suite 310, Emeryville, California 94608, and we maintain a registered office located at Corporation Trust Center, 1209 Orange Street, Wilmington, Delaware 19801. Our telephone number at our principal executive offices is (510) 204-7200. Our website address is www.xoma.com. The information found on our website is not part of this or any other report filed with or furnished to the Securities and Exchange Commission ("SEC").

Employees

As of March 4, 2019, we employed 11 full-time employees. None of our employees are unionized. Our employees are primarily engaged in executive, business development, legal, finance and administrative positions.

Available Information

The following information can be found on our website at http://www.xoma.com or can be obtained free of charge by contacting our Investor Relations Department at investorrelations@xoma.com or by calling (510) 204-7482:

- Our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and any amendments to those reports filed or furnished under Section 13(a) or 15(d) of the Exchange Act will be available as soon as reasonably practicable after such material is electronically filed with the SEC.
- Our policies related to corporate governance, including our Code of Ethics applying to our directors, officers and employees (including our principal executive officer and principal financial and accounting officer) that we have adopted to meet the requirements set forth in the rules and regulations of the SEC and its corporate governance principles.
- The charters of the Audit, Compensation and Nominating & Governance Committees of our Board of Directors.

We intend to satisfy the applicable disclosure requirements regarding amendments to, or waivers from, provisions of our Code of Ethics by posting such information on our website.

Item 1A. Risk Factors

The following risk factors and other information included in this annual report should be carefully considered. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties not presently known to us also may impair our business operations. If any of the following risks occur, our business, financial condition, operating results and cash flows could be materially adversely affected.

Risks Related to our Royalty Aggregator Strategy

Our acquisitions of potential future royalty and/or milestone payments may not produce anticipated revenues and/or may be negatively affected by a default or bankruptcy of the licensor(s) or licensee(s) under the applicable license agreement(s) covering such potential royalties and/or milestones, and if such transactions are secured by collateral, we may be, or may become, under-secured by the collateral or such collateral may lose value and we will not be able to recuperate our capital expenditures associated with the acquisition.

We are engaged in a continual review of opportunities to acquire royalties and other intellectual property assets as part of our royalty aggregator strategy or to acquire companies that hold royalty assets. Generally, at any time, we seek to have acquisition opportunities in various stages of active review, including, for example, our engagement of consultants and advisors to analyze particular opportunities, technical, financial and other confidential information, submission of indications of interest and involvement as a bidder in competitive auctions. Many potential acquisition targets do not meet our criteria, and for those that do, we may face significant competition for these acquisitions from other royalty buyers and enterprises. Competition for future asset acquisition opportunities in our markets could increase the price we pay for such assets and could reduce the number of potential acquisition targets. The success of our acquisitions is based on our ability to make accurate assumptions regarding the valuation, timing and amount of future royalty and milestone payments as well as the viability of the underlying technology. The failure of any of these acquisitions to produce anticipated revenues may materially and adversely affect our financial condition and results of operations.

Some of these acquisitions may expose us to credit risk in the event of a default by or bankruptcy of the licensor(s) or licensee(s) that are parties the applicable license agreement(s) covering the potential milestone and royalty streams being acquired. While we generally try to structure our potential receipt of milestone and royalty payments to minimize the risk associated with such a default or bankruptcy, there can be no assurance that any such default or bankruptcy will not adversely affect our ability to receive future potential royalty and/or milestone payments. To mitigate this risk, on occasion, we may obtain a security interest as collateral in the assets of such counterparty. Our credit risk in respect of such counterparty may be exacerbated when the collateral held by us cannot be realized upon or is liquidated at prices not sufficient to recover the full amount we are due pursuant to the terms of the particular assets. This could occur in circumstances where the original collateral was not sufficient to cover a complete loss (e.g., our interests were only partially secured) or may result from the deterioration in value of the collateral, so that, in either such case, we are unable to recuperate our full capital outlay. Any such losses resulting therefrom could materially and adversely affect our financial condition and results of operations.

Many of our potential royalty acquisitions may be associated with drug products that are in clinical development and have not yet been commercialized. To the extent that such products are not successfully developed and commercialized, our financial condition and results of operations may be negatively impacted.

As part of our royalty aggregator strategy, we will likely purchase future milestone and royalty streams associated with drug products which are in clinical development and have not yet been commercialized. To the extent that any such drug products are not successfully developed and subsequently commercialized, the value of our acquired potential milestone and royalty streams will be negatively affected. The ultimate success of our royalty aggregator strategy will depend on our ability to properly identify and acquire high quality products and the ability of the

applicable counterparty to innovate, develop and commercialize their products, in increasingly competitive and highly regulated markets. Their inability to do so would negatively affect our ability to receive royalty payments. In addition, we are dependent, to a large extent, on third parties to enforce certain rights for our benefit, such as protection of a patent estate, adequate reporting and other protections, and their failure to do so would negatively impact our financial condition and results of operation.

We depend on our licensees and royalty-agreement counterparties for the determination of royalty and milestone payments. While we typically have primary or back-up rights to audit our licensees and royalty-agreement counterparties, the independent auditors may have difficulty determining the correct royalty calculation, we may not be able to detect errors and payment calculations may call for retroactive adjustments. We may have to exercise legal remedies, if available, to resolve any disputes resulting from the audit.

The royalty and milestone payments we may receive are dependent on our licensees based on their reported achievement of regulatory and developmental milestones and product sales. Each licensee's calculation of the royalty payments is subject to and dependent upon the adequacy and accuracy of its sales and accounting functions, and errors may occur from time to time in the calculations made by a licensee and/or a licensee may fail to report the achievement of royalties or milestones in whole or in part. Our license and royalty agreements typically provide us the primary or back-up right to audit the calculations and sales data for the associated royalty payments; however, such audits may occur many months following our recognition of the royalty revenue, may require us to adjust our royalty revenues in later periods and may require expense on the part of the Company. Further, our licensees and royalty-agreement counterparties may be uncooperative or have insufficient records, which may complicate and delay the audit process.

Although we intend to regularly exercise our royalty audit rights as necessary and to the extent available, we rely in the first instance on our licensees and royalty-agreement counterparties to accurately report the achievement of milestones and royalty sales and calculate and pay applicable milestones and royalties and, upon exercise of such royalty and other audit rights, we rely on licensees' and royalty-agreement counterparties' cooperation in performing such audits. In the absence of such cooperation, we may be forced to exercise legal remedies, if available, to enforce our agreements.

The lack of liquidity of our intellectual property acquisitions may adversely affect our business and, if we need to sell any of our acquired assets, we may not be able to do so at a favorable price, if at all. As a result, we may suffer losses.

We generally acquire patents, milestone and royalty rights that have limited secondary resale markets and may be subject to transfer restrictions. The illiquidity of most of our intellectual property related assets may make it difficult for us to dispose of them at a favorable price if at all and, as a result, we may suffer losses if we are required to dispose of any or all such assets in a liquidation or otherwise. In addition, if we liquidate all or a portion of our purchased royalty stream assets quickly or relating to a liquidation, we may realize significantly less than the value at which we had previously recorded these assets.

Our royalty aggregator strategy may require that we register with the SEC as an “investment company” in accordance with the Investment Company Act of 1940.

In 2017 we began transforming our business model from a traditional biotech enterprise discovering and developing innovative therapeutics from our own platform of antibody technologies to a royalty aggregator where we focus on expanding our pipeline of fully-funded programs by acquiring potential milestone and royalty revenue streams on additional product candidates from third parties and out-licensing our internally developed product candidates.

The rules and interpretations of the SEC and the courts, relating to the definition of "investment company" are very complex. While we currently intend to conduct our operations so that we will not be an investment company under applicable SEC interpretations, we can provide no assurance that the SEC would not take the position that the Company would be required to register under the Investment Company Act of 1940(the “‘40 Act”) and comply with the ‘40 Act’s registration and reporting requirements, capital structure requirements, affiliate transaction restrictions, conflict of interest rules, requirements for disinterested directors, and other substantive provisions. We monitor our assets and income for compliance under the ‘40 Act and seek to conduct our business activities to ensure that we do not

fall within its definitions of “investment company” or qualify under one of the exemptions or exclusions provided by the ‘40 Act. If we were to become an “investment company” and be subject to the restrictions of the ‘40 Act, those restrictions would likely require changes in the way we do business and add significant administrative burdens to our operations. To ensure that we do not fall within the ‘40 Act, we may need to take various actions which we might otherwise not pursue. These actions may include restructuring the Company and/or modifying our mixture of assets and income.

Risks Related to our Financial Results and Capital Requirements

We have sustained losses in the past, and we expect to sustain losses in the foreseeable future.

With the exception of the year ended December 31, 2017, we have incurred significant operating losses and negative cash flows from operations since our inception. We had a net loss of $13.3 million for the year ended December 31, 2018 and net income of $14.6 million for the year ended December 31, 2017. As of December 31, 2018, we had an accumulated deficit of $1.2 billion. We do not know whether we will ever achieve sustained profitability or whether cash flow from future operations will be sufficient to meet our needs.

To date, we have financed our operations primarily through the sale of equity securities and debt, and collaboration and licensing arrangements. The size of our future net losses will depend, in part, on the rate of our future expenditures and our and our partners' ability to generate revenues. If our partners' product candidates are not successfully developed or commercialized by our licensees, or if revenues are insufficient following regulatory approval, we will not achieve profitability and our business may fail. Our ability to achieve profitability is dependent in large part on the success of our and our licensees' ability to license product candidates, and the success of our licensees' development programs, both of which are uncertain. Our success is also dependent on our licensees obtaining regulatory approval to market product candidates which may not materialize or prove to be successful.

Our new strategy may require us to raise additional funds to acquire royalty assets; we cannot be certain that funds will be available or available at an acceptable cost of capital, and if they are not available, we may be unsuccessful in acquiring royalty assets to sustain the business in the future.

We may need to commit substantial funds to continue our business, and we may not be able to obtain sufficient funds on acceptable terms, if at all. Any additional debt financing or additional equity that we raise may contain terms that are not favorable to us and/or result in dilution to our stockholders, including pursuant to our 2018 ATM Agreement. If we raise additional funds through licensing arrangements with third parties, we may be required to relinquish some rights to our technologies or our product candidates, grant licenses on terms that are not favorable to us or enter into a license arrangement for a product candidate at an earlier stage of development or for a lesser amount than we might otherwise choose.

If adequate funds are not available on a timely basis, we may:

- reduce or eliminate royalty aggregation efforts; or
- further reduce our capital or operating expenditures; or
- curtail our spending on protecting our intellectual property.

We have significantly restructured our business and revised our business plan and there are no assurances that we will be able to successfully implement our business plan or successfully operate as a royalty aggregator.

We have historically been focused on discovering and developing innovative therapeutics derived from our unique platform of antibody technologies. We have now become a royalty aggregator where we focus on expanding our pipeline of fully-funded programs by out-licensing our internally developed product candidates and acquiring potential milestone and royalty revenue streams on additional product candidates. Our strategy is based on a number of factors and assumptions, some of which are not within our control, such as the actions of third parties. There can be no assurance that we will be able to successfully execute all or any elements of our strategy, or that our ability to successfully execute our strategy will be unaffected by external factors. If we are unsuccessful in acquiring potential milestone and royalty revenue streams on additional product candidates, or those acquisitions do not perform to our expectations, our financial performance and balance sheet could be adversely affected.

We may not realize the expected benefits of our cost-saving initiatives.

Reducing costs is a key element of our current business strategy. In August 2015, in connection with our efforts to lower operating expenses and preserve capital while continuing to focus on our product pipeline, we implemented a workforce reduction, which led to the termination of 52 employees during the second half of 2015. In December 2016, we restructured our business to focus our efforts on clinical development, with an initial focus on the X358 clinical program, resulting in a further reduction-in-force in which we terminated 57 employees. In early 2017, we implemented a royalty aggregator business model, which resulted in the termination of five additional employees effective June 30, 2017.

If we experience excessive unanticipated inefficiencies or incremental costs in connection with restructuring activities, such as unanticipated inefficiencies caused by our reduced headcount, we may be unable to meaningfully realize cost savings or capitalize on future opportunities and we may incur expenses in excess of what we anticipate. Any of these outcomes could prevent us from meeting our strategic objectives and could adversely impact our results of operations and financial condition.

Risks Related to Our Reliance on Third Parties

We rely heavily on licensee relationships, and any disputes or litigation with our partners or termination or breach of any of the related agreements could reduce the financial resources available to us, including our ability to receive milestone payments and future royalty revenues.

Our existing collaborations may not continue or be successful, and we may be unable to enter into future collaborative arrangements to develop and commercialize our unpartnered assets. Generally, our current collaborative partners also have the right to terminate their collaborations at will or under specified circumstances. If any of our collaborative partners breach or terminate their agreements with us or otherwise fail to conduct their collaborative activities successfully (for example, by not making required payments when due, or at all), our product development under these agreements will be delayed or terminated. Disputes or litigation may also arise with our collaborators (with us and/or with one or more third parties), including those over ownership rights to intellectual property, know-how or technologies developed with our collaborators.

Our licensees rely on third parties to provide services in connection with our product candidate development and manufacturing programs. The inadequate performance by or loss of any of these service providers could affect our licensees' product candidate development.

Third parties provide services in connection with preclinical and clinical development programs, including in vitro and in vivo studies, assay and reagent development, immunohistochemistry, toxicology, pharmacokinetics, clinical trial support, manufacturing and other outsourced activities. If these service providers do not adequately perform the services for which we or our licensees have contracted, or cease to continue operations, and we are not able to find a replacement provider quickly or we lose information or items associated with our product candidates, our development programs and receipt of any potential resulting income may be delayed.

Agreements with other third parties, many of which are significant to our business, expose us to numerous risks.

Because our licensees, suppliers and contractors are independent third parties, they may be subject to different risks than we are and have significant discretion in, and different criteria for, determining the efforts and resources they will apply related to their agreements with us. If these licensees, suppliers and contractors do not successfully perform the functions for which they are responsible, we may not have the capabilities, resources or rights to do so on our own.

We do not know whether we or our licensees will successfully develop and market any of the products that are or may become the subject of any of our licensing arrangements. In addition, third-party arrangements such as ours also increase uncertainties in the related decision-making processes and resulting progress under the arrangements, as we and our licensees may reach different conclusions, or support different paths forward, based on the same information, particularly when large amounts of technical data are involved.

Under our contract with NIAID, a part of the National Institute of Health ("NIH"), we invoiced using NIH provisional rates, and these are subject to future audits at the discretion of NIAID's contracting office. These audits can result in an adjustment to revenue previously reported, which potentially could be material.

Failure of our licensees' product candidates to meet current Good Manufacturing Practices standards may subject us to delays in regulatory approval and penalties for noncompliance.

Our licensees may rely on third party manufacturers and such contract manufacturers are required to produce clinical product candidates under current Good Manufacturing Practices ("cGMP") to meet acceptable standards for use in clinical trials and for commercial sale, as applicable. If such standards change, the ability of contract manufacturers to produce our and our licensees' product candidates on the schedule required for our clinical trials or to meet commercial requirements may be affected. In addition, contract manufacturers may not perform their obligations under their agreements with our licensees or may discontinue their business before the time required by us to successfully produce clinical and commercial supplies of our licensees' product candidates.

Contract manufacturers are subject to pre-approval inspections and periodic unannounced inspections by the FDA and corresponding state and foreign authorities to ensure strict compliance with cGMP and other applicable government regulations and corresponding foreign standards. We do not have control over a third-party manufacturer's compliance with these regulations and standards. Any difficulties or delays in contractors' manufacturing and supply of our licensees' product candidates or any failure of our licensees' contractors to maintain compliance with the applicable regulations and standards could increase costs, reduce revenue, make our licensees postpone or cancel clinical trials, prevent or delay regulatory approval by the FDA and corresponding state and foreign authorities, prevent the import and/or export of our licensees' product candidates, or cause any of our licensees' product candidates that may be approved for commercial sale to be recalled or withdrawn.

Certain of our technologies are in-licensed from third parties, so our and our licensees' capabilities using them are restricted and subject to additional risks.

We have licensed technologies from third parties. These technologies include phage display technologies licensed to us in connection with our bacterial cell expression technology licensing program and antibody products. However, our and our licensees' use of these technologies is limited by certain contractual provisions in the licenses relating to them, and although we have obtained numerous licenses, intellectual property rights in the area of phage display are particularly complex. If we are unable to maintain our licenses, patents or other intellectual property, we could lose important protections that are material to continuing our operations and for future prospects. Our licensors also may seek to terminate our license, which could cause us and our licensees to lose the right to use the licensed intellectual property and adversely affect our ability to commercialize our technologies, products or services.

Because many of the companies with which we do business also are in the biotechnology sector, the volatility of that sector can affect us indirectly as well as directly.

The same factors that affect us directly also can adversely affect us indirectly by affecting the ability of our partners and others with whom we do business to meet their obligations to us and reduce our ability to realize the value of the consideration provided to us by these other companies in connection with their licensing of our products.

Risks Related to an Investment in Our Common Stock

Our share price may be volatile, and there may not be an active trading market for our common stock.

There can be no assurance the market price of our common stock will not decline below its present market price or there will be an active trading market for our common stock. The market prices of biotechnology companies have been and are likely to continue to be highly volatile. Fluctuations in our operating results and general market conditions for biotechnology stocks could have a significant impact on the volatility of our common stock price. We have experienced significant volatility in the price of our common stock. From January 1, 2018, through March 4, 2019, the share price of our common stock has ranged from a high of $36.86 to a low of $11.02. Additionally, we have two significant holders of our stock that could affect the liquidity of our stock and have a significant negative impact on our stock price if one or both of the holders were to quickly sell their ownership positions.

Our results of operations and liquidity needs could be materially negatively affected by market fluctuations or an economic downturn.

Our results of operations could be materially negatively affected by economic conditions generally, both in the United States and elsewhere around the world. Concerns over inflation, energy costs, geopolitical issues, the availability and cost of credit, and the U.S. financial markets have in the past contributed to, and may continue in the future contribute to, increased volatility and diminished expectations for the economy and the markets. Domestic and international

equity markets periodically experience heightened volatility and turmoil. These events may have an adverse effect on us. In the event of a market downturn, our results of operations could be adversely affected by those factors in many ways, including making it more difficult for us to raise funds if necessary, and our stock price may decline.

We may issue additional equity securities and thereby materially and adversely affect the price of our common stock.

We expect that significant additional capital will be needed in the future to continue our planned operations. To the extent we raise additional capital by issuing equity securities, our stockholders may experience substantial dilution. We may sell common stock, convertible securities or other equity securities in one or more transactions at prices and in such a manner as we determine from time to time, including pursuant to our 2018 ATM Agreement. If we sell common stock, convertible securities or other equity securities in more than one transaction, investors may be materially diluted by subsequent sales. These sales may also result in material dilution to our existing stockholders, and new investors could gain rights superior to our existing stockholders.

We are authorized to issue, without stockholder approval, 1,000,000 shares of preferred stock, of which 5,003 shares of Series X preferred stock and 1,252.772 shares of Series Y preferred stock were issued and outstanding as of December 31, 2018. Each share of Series X and Series Y is convertible into 1,000 shares of registered common stock based on a conversion price of $4.03 per share and $13.00 per share of common stock, respectively. The total number of shares of common stock issued upon conversion of all issued Series X and Series Y convertible preferred stock will be 6,255,772 shares. Each share is convertible at the option of the holder at any time, provided that the holder will be prohibited from converting into common stock if, as a result of such conversion, the holder, together with its affiliates, would beneficially own a number of shares above a conversion blocker, which is initially set at 19.99% of our total common stock then issued and outstanding immediately following the conversion of such shares. If we issue additional equity securities, the price of our common stock may be materially and adversely affected.

In addition, funding from collaboration partners and others has in the past and may in the future involve issuance by us of our common stock. We cannot be certain how the purchase price of such shares, the relevant market price or premium, if any, will be determined or when such determinations will be made.

Any issuance by us of equity securities, whether through an underwritten public offering, an at the market offering, a private placement, in connection with a collaboration or otherwise could result in dilution in the value of our issued and outstanding shares, and a decrease in the trading price of our common stock.

We may sell additional equity or debt securities to fund our operations, which may result in dilution to our stockholders and impose restrictions on our business.

In order to raise additional funds to support our operations, we may sell additional equity or debt securities, which would result in dilution to our stockholders and may impose restrictive covenants that would adversely impact our business. The sale of additional equity or convertible debt securities could result in the issuance of additional shares of our capital stock and dilution to all of our stockholders. The incurrence of indebtedness would result in increased fixed payment obligations and could also result in certain restrictive covenants, such as limitations on our ability to incur additional debt, limitations on our ability to acquire, sell or license intellectual property rights and other operating restrictions that could adversely impact our ability to conduct our business. If we are unable to expand our operations or otherwise capitalize on our business opportunities, our business, financial condition and results of operations could be materially adversely affected and we may not be able to meet our debt service obligations.

Our organizational documents contain provisions that may prevent transactions that could be beneficial to our stockholders and may insulate our management from removal.

Our charter and by-laws:

- require certain procedures to be followed and time periods to be met for any stockholder to propose matters to be considered at annual meetings of stockholders, including nominating directors for election at those meetings; and

- authorize our Board of Directors to issue up to 1,000,000 shares of preferred stock without stockholder approval and to set the rights, preferences and other designations, including voting rights, of those shares as the Board of Directors may determine.

In addition, we are subject to the provisions of Section 203 of the Delaware General Corporation Law (the "DGCL"), that may prohibit large stockholders, in particular those owning 15% or more of our outstanding common stock, from merging or combining with us.

These provisions of our organizational documents and the DGCL, alone or in combination with each other, may discourage transactions involving actual or potential changes of control, including transactions that otherwise could involve payment of a premium over prevailing market prices to holders of common stock, could limit the ability of stockholders to approve transactions that they may deem to be in their best interests, and could make it considerably more difficult for a potential acquirer to replace management.

As a public company in the United States, we are subject to the Sarbanes-Oxley Act. We have determined our disclosure controls and procedures and our internal control over financial reporting are effective. We can provide no assurance that we will, at all times, in the future be able to report that our internal controls over financial reporting are effective.

Companies that file reports with the SEC, including us, are subject to the requirements of Section 404 of the Sarbanes-Oxley Act of 2002 (“SOX”). Section 404 requires management to establish and maintain a system of internal control over financial reporting, and annual reports on Form 10-K filed under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), must contain a report from management assessing the effectiveness of our internal control over financial reporting. Ensuring we have adequate internal financial and accounting controls and procedures in place to produce accurate financial statements on a timely basis is a time-consuming effort that needs to be re-evaluated frequently. Failure on our part to have effective internal financial and accounting controls would cause our financial reporting to be unreliable, could have a material adverse effect on our business, operating results, and financial condition, and could cause the trading price of our common stock to fall.

We incur significant costs as a result of operating as a public company, which may adversely affect our operating results and financial condition.

As a public company, we incur significant accounting, legal and other expenses, including costs associated with our public company reporting requirements. We also anticipate that we will continue to incur costs associated with corporate governance requirements, including requirements and rules under SOX and the Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd-Frank") among other rules and regulations implemented by the SEC, as well as listing requirements of Nasdaq. Furthermore, these laws and regulations could make it difficult or costly for us to obtain certain types of insurance, including director and officer liability insurance, and we may be forced to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. The impact of these requirements could also make it difficult for us to attract and retain qualified persons to serve on our Board of Directors, our Board Committees or as executive officers.

New laws and regulations as well as changes to existing laws and regulations affecting public companies, including the provisions of SOX and Dodd-Frank and rules adopted by the SEC and Nasdaq, will likely result in increased costs to us as we respond to their requirements. We continue to invest resources to comply with evolving laws and regulations, and this investment may result in increased general and administrative expense.

Our ability to use our net operating loss carry-forwards and other tax attributes will be substantially limited by Section 382 of the U.S. Internal Revenue Code.

Under the federal income tax law, federal net operating losses incurred in 2018 and in future years may be carried forward indefinitely, but the deductibility of such federal net operating losses is limited. It is uncertain if and to what extent various states will conform to the federal tax law. In addition, Section 382 of the U.S. Internal Revenue Code of 1986, as amended, and corresponding provisions of state law, generally limit the ability of a corporation that undergoes an “ownership change” to utilize its net operating loss carry-forwards (“NOLs”) and certain other tax attributes against any taxable income in taxable periods after the ownership change. The amount of taxable income in each taxable year after the ownership change that may be offset by pre-change NOLs and certain other pre-change tax attributes is generally equal to the product of (a) the fair market value of the corporation’s outstanding shares (or, in the case of a foreign corporation, the fair market value of items treated as connected with the conduct of a trade or business in the United States) immediately prior to the ownership change and (b) the long-term tax exempt rate (i.e., a rate of interest established by the U.S. Internal Revenue Service that fluctuates from month to month). In general, an “ownership change” occurs whenever the percentage of the shares of a corporation owned, directly or indirectly, by “5-percent shareholders” (within the meaning of Section 382 of the Internal Revenue Code) increases by more than 50

percentage points over the lowest percentage of the shares of such corporation owned, directly or indirectly, by such "5-percent shareholders" at any time over the preceding three years.

Based on an analysis under Section 382 of the Internal Revenue Code (which subjects the amount of pre-change NOLs and certain other pre-change tax attributes that can be utilized to an annual limitation), we experienced ownership changes in 2009 and 2012, which substantially limit the future use of our pre-change NOLs and certain other pre-change tax attributes per year. In February 16, 2017, we completed an equity financing for net proceeds of $24.8 million which triggered an additional ownership change under Section 382 that significantly impacted the availability of our tax attributes against future income. Further, due to the existence of a net unrealized built-in loss at the ownership change date, Section 382 further limits our ability to fully utilize the tax deductions associated with certain of our assets, including depreciation and amortization deductions recognized during the 60-month period following the ownership change ending in 2022. Although these deductions will occur in the post-change period, Section 382 treats the deductions as pre-change losses subject to the annual 382 limitation. As of December 31, 2018, we have excluded the NOLs and research and development credits that will expire as a result of the annual limitations. To the extent that we do not utilize our carry-forwards within the applicable statutory carry-forward periods, either because of Section 382 limitations or the lack of sufficient taxable income, the carry-forwards will also expire unused.

The comprehensive tax reform bill could adversely affect our business and financial condition.

On December 22, 2017, the Tax Cuts and Jobs Act of 2017 was signed into law that significantly revises the Internal Revenue Code of 1986, as amended. The federal income tax law, among other things, contains significant changes to corporate taxation, including reduction of the corporate tax rate from a top marginal rate of 35% to a flat rate of 21%, limitation of the tax deduction for interest expense to 30% of adjusted earnings (except for certain small businesses), limitation of the deduction for net operating losses to 80% of current year taxable income and elimination of net operating loss carrybacks, one time taxation of offshore earnings at reduced rates regardless of whether they are repatriated, immediate deductions for certain new investments instead of deductions for depreciation expense over time, and modifying or repealing many business deductions and credits (including reducing the business tax credit for certain clinical testing expenses incurred in the testing of certain drugs for rare diseases or conditions) which may, as applicable, have an adverse effect on our profitability. Notwithstanding the reduction in the corporate income tax rate, the overall impact of the new federal tax law is uncertain and our business and financial condition could be adversely affected. In addition, it is uncertain if and to what extent various states will conform to the federal tax law. The impact of this tax reform on holders of our common stock is also uncertain and could be adverse.

Risks Related to the Development and Commercialization of our Current and Future Product Candidates

We may not be able to successfully identify and acquire and/or in-license other products, product candidates, programs or companies to grow and diversify our business, and, even if we are able to do so, we may not be able to successfully manage the risks associated with integrating any such products, product candidates, programs or companies into our business or we may otherwise fail to realize the anticipated benefits of these licenses or acquisitions.

To grow and diversify our business, we plan to continue our business development efforts to identify and seek to acquire and/or in-license potential milestone and royalty streams or companies. Future growth through acquisition or in-licensing will depend upon the availability of suitable products, product candidates, programs or companies for acquisition or in-licensing on acceptable prices, terms and conditions. Even if appropriate opportunities are available, we may not be able to acquire rights to them on acceptable terms, or at all. The competition to acquire or in-license rights to promising products, product candidates, programs and companies is fierce, and many of our competitors are large, multinational pharmaceutical and biotechnology companies with considerably more financial, development and commercialization resources, personnel, and experience than we have. In order to compete successfully in the current business climate, we may have to pay higher prices for assets than may have been paid historically, which may make it more difficult for us to realize an adequate return on any acquisition.

Even if we are able to successfully identify and acquire or in-license new products, product candidates, programs or companies, we may not be able to successfully manage the risks associated with integrating any products, product candidates, programs or companies into our business or the risks arising from anticipated and unanticipated problems in connection with an acquisition or in-licensing. Further, while we seek to mitigate risks and liabilities of potential acquisitions through, among other things, due diligence, there may be risks and liabilities that such due diligence efforts fail to discover, that are not disclosed to us, or that we inadequately assess. Any failure in identifying and managing these risks and uncertainties effectively would have a material adverse effect on our business. In any event, we may not be able to realize the anticipated benefits of any acquisition or in-licensing for a variety of reasons, including the possibility that a product candidate fails to advance to clinical development, proves not to be safe or effective in clinical trials, or that a product fails to reach its forecasted commercial potential or that the integration of a product, product candidate, program or company gives rise to unforeseen difficulties and expenditures. Any failure in identifying and managing these risks and uncertainties would have a material adverse effect on our business.

We may not be successful in entering into out-license agreements for our product candidates, which may adversely affect our liquidity and business.

We intend to pursue a strategy to out-license all of our product candidates in order to provide for potential payments, funding and/or royalties on future product sales. The out-license agreements may be structured to share in the proceeds received by a licensee as a result of further development or commercialization of the product candidates. We may not be successful in entering into out-licensing agreements with favorable terms as a result of factors, many of which are outside of our control. These factors include:

- research and spending priorities of potential licensing partners;
- willingness of, and the resources available to, pharmaceutical and biotechnology companies to in-license drug candidates to fill their clinical pipelines; or
- our inability to generate proof-of-concept data and to agree with a potential partner on the value of our product candidates, or on the related terms.

If we are unable to enter into out-licensing agreements for our product candidates and realize license, milestone and/or royalty fees when anticipated, it may adversely affect our liquidity, which in turn may harm our business.

If our licensees' therapeutic product candidates do not receive regulatory approval, our licensees will be unable to market them.

Our licensees' product candidates cannot be manufactured and marketed in the United States or any other countries without required regulatory approvals. The U.S. government and governments of other countries extensively regulate many aspects of our product candidates, including:

- clinical development and testing;
- manufacturing;
- labeling;
- storage;
- record keeping;
- promotion and marketing; and
- importing and exporting.

In the United States, the FDA regulates pharmaceutical products under the Federal Food, Drug, and Cosmetic Act and other laws, including, in the case of biologics, the Public Health Service Act.

Initiation of clinical trials requires approval by health authorities. Clinical trials involve the administration of the investigational new drug to healthy volunteers or to patients under the supervision of a qualified principal investigator. Clinical trials must be conducted in accordance with FDA and International Conference on Harmonization Good Clinical Practices and the European Clinical Trials Directive, as applicable, under protocols that detail the objectives of the study, the parameters to be used to monitor safety and the efficacy criteria to be evaluated. Other national, foreign and local regulations also may apply. The developer of the drug must provide information relating to the characterization and controls of the product before administration to the patients participating in the clinical trials. This requires developing approved assays of the product to test before administration to the patient and during the conduct of the trial. In addition, developers of pharmaceutical products must provide periodic data regarding clinical trials to the FDA and other health authorities, and these health authorities may issue a clinical hold upon a trial if they do not believe, or cannot confirm, that the trial can be conducted without unreasonable risk to the trial participants.

The results of the preclinical studies and clinical testing, together with chemistry, manufacturing and controls information, are submitted to the FDA and other health authorities in the form of a New Drug Application ("NDA") for a drug, and in the form of a Biologic License Application ("BLA") for a biological product, requesting approval to commence commercial sales. In responding to an NDA or BLA, the FDA or foreign health authorities may grant marketing approvals, request additional information or further research, or deny the application if they determine the application does not satisfy regulatory approval criteria. Regulatory approval of an NDA, BLA, or supplement is never guaranteed. The approval process can take several years, is extremely expensive and can vary substantially based upon the type, complexity, and novelty of the products involved, as well as the target indications. Our licensees ultimately may not be able to obtain approval in a timely fashion or at all.

The FDA and foreign health authorities have substantial discretion in the drug and biologics approval processes. Despite the time and expense incurred, failure can occur at any stage, and our potential development partners could encounter problems that cause abandonment of clinical trials or cause them to repeat or perform additional preclinical, clinical or manufacturing-related studies.

Changes in the regulatory approval policy during the development period, changes in, or the enactment of additional regulations or statutes, or changes in regulatory review for a submitted product application may cause delays in the

approval or rejection of an application.

The FDA and other regulatory agencies have substantial discretion in both the product approval process and manufacturing facility approval process, and as a result of this discretion and uncertainties about outcomes of testing, we cannot predict at what point, or whether, the FDA or other regulatory agencies will be satisfied with our licensees' submissions or whether the FDA or other regulatory agencies will raise questions that may be material and delay or preclude product approval or manufacturing facility approval. In light of this discretion and the complexities of the scientific, medical and regulatory environment, our or our licensees' interpretation or understanding of the FDA's or other regulatory agencies' requirements, guidelines or expectations may prove incorrect, which also could delay further or increase the cost of the approval process.

Our licensees and potential milestone and royalty providers face uncertain results of clinical trials of product candidates.

Drug development has inherent risk, and our licensees and potential milestone and royalty providers are required to demonstrate through adequate and well-controlled clinical trials that product candidates are effective, with a favorable benefit-risk profile for use in their target profiles before they can seek regulatory approvals for commercial use. It is possible we or our licensees may never receive regulatory approval for any licensed product candidates. Even if a product candidate receives regulatory approval, the resulting product may not gain market acceptance among physicians, patients, healthcare payors and the medical community.

Our licensees' product candidates require significant additional research and development, extensive preclinical studies and clinical trials and regulatory approval prior to any commercial sales. This process is lengthy and expensive, often taking a number of years. As clinical results frequently are susceptible to varying interpretations that may delay, limit or prevent regulatory approvals, the length of time necessary to complete clinical trials and to submit an application for marketing approval for a final decision by a regulatory authority varies significantly. As a result, it is uncertain whether:

- our licensees' future filings will be delayed;
- our licensees' preclinical studies will be successful;
- our licensees will be successful in generating viable product candidates;
- we will be successful in finding collaboration and licensing partners to advance our product candidates on our behalf;
- our licensees will be able to provide necessary data;
- results of future clinical trials by our licensees will justify further development; or
- our licensees ultimately will achieve regulatory approval for our product candidates.

The timing of the commencement, continuation and completion of clinical trials by our licensees may be subject to significant delays relating to various causes, including failure to complete preclinical testing and earlier-stage clinical trials in a timely manner, inability to engage contract research organizations and other service providers, scheduling conflicts with participating clinicians and clinical institutions, changes in key personnel at clinical institutions, difficulties in identifying and enrolling patients who meet trial eligibility criteria and shortages of available drug supply. In addition, since we license our product candidates to others to fund and conduct clinical trials, we have limited control over how quickly and efficiently such licensees advance those trials. Patient enrollment is a function of many factors, including the size of the patient population, the proximity of patients to clinical sites, the concentration of patients in specialist centers, the eligibility criteria for the trial, the existence of competing clinical trials and the availability of alternative or new treatments. Regardless of the initial size or relative complexity of a clinical trial, the costs of such trial may be higher than expected due to increases in duration or size of the trial, changes in the protocol under which the trial is being conducted, additional or special requirements of one or more of the healthcare centers where the trial is being conducted, or changes in the regulatory requirements applicable to the trial or in the standards or guidelines for approval of the product candidate being tested or for other unforeseen reasons.

In addition, our licensees may conduct clinical trials in foreign countries, which may subject them to further delays and expenses as a result of increased drug shipment costs, additional regulatory requirements and the engagement of foreign clinical research organizations, and may expose us to risks associated with foreign currency transactions to make contract payments denominated in the foreign currency where the trial is being conducted.

Products and technologies of other companies may render some or all of our licensees' product candidates noncompetitive or obsolete.

Developments by others may render our licensees' product candidates or technologies obsolete or uncompetitive. Technologies developed and utilized by the biotechnology and pharmaceutical industries are changing continuously

and substantially. Competition in antibody-based technologies is intense and is expected to increase in the future as a number of established biotechnology firms and large chemical and pharmaceutical companies advance in these fields. Many of these competitors may be able to develop products and processes competitive with or superior to our own for many reasons, including that they may have:

- significantly greater financial resources;
- larger research and development staffs;
- entered into arrangements with, or acquired, biotechnology companies to enhance their capabilities; or
- extensive experience in preclinical testing and human clinical trials.

These factors may enable others to develop products and processes competitive with or superior to our own or those of our licensees. In addition, a significant amount of research in biotechnology is being carried out in universities and other non-profit

research organizations. These entities are becoming increasingly interested in the commercial value of their work and may become more aggressive in seeking patent protection and licensing arrangements. Furthermore, many companies and universities tend not to announce or disclose important discoveries or development programs until their patent position is secure or, for other reasons, later. As a result, we and our licensees may not be able to track development of competitive products, particularly at the early stages.

Positive developments in connection with a potentially competing product may have an adverse impact on our revenue derived from development milestones. For example, if another product is perceived to have a competitive advantage, or another product's failure is perceived to increase the likelihood that our licensed product will fail, our licensees may halt development of our licensed product candidates.

Our licensees may be unable to price our products effectively or obtain adequate reimbursement for sales of our products, which would prevent our licensees' products from becoming profitable and negatively affect the royalties we may receive.

If our third-party licensees succeed in bringing our product candidates to the market, they may not be considered cost effective, and reimbursement to the patient may not be available or may not be sufficient to allow us to sell our products on a competitive basis. In both the United States and elsewhere, sales of medical products and treatments are dependent, in part, on the availability of reimbursement to the patient from third-party payors, such as government and private insurance plans. Third-party payors are increasingly challenging the prices charged for pharmaceutical products and services. Our business is affected by the efforts of government and third-party payors to contain or reduce the cost of healthcare through various means. In the United States, there have been and will continue to be a number of federal and state proposals to implement government controls on pricing.

In addition, the emphasis on managed care in the United States has increased and will continue to increase the pressure on the pricing of pharmaceutical products. We cannot predict whether any legislative or regulatory proposals will be adopted or the effect these proposals or managed care efforts may have on our business.

We do not know whether there will be, or will continue to be, a viable market for the product candidates in which we have an ownership or royalty interest.

Even if product candidates in which we have an interest receive approval in the future, they may not be accepted in the marketplace. In addition, we or our licensees may experience difficulties in launching new products, many of which are novel and based on technologies that are unfamiliar to the healthcare community. We have no assurance healthcare providers and patients will accept such products, if developed. Similarly, physicians may not accept a product if they believe other products to be more effective or more cost effective or are more comfortable prescribing other products.

Furthermore, government agencies, as well as private organizations involved in healthcare, from time to time publish guidelines or recommendations to healthcare providers and patients. Such guidelines or recommendations can be very influential and may adversely affect product usage directly (for example, by recommending a decreased dosage of a product in conjunction with a concomitant therapy) or indirectly (for example, by recommending a competitive product over our product). Consequently, we do not know if physicians or patients will adopt or use our products for their approved indications.

Even approved and marketed products are subject to risks relating to changes in the market for such products. Introduction or increased availability of generic or biosimilar versions of products can alter the market acceptance of branded products. In addition, unforeseen safety issues may arise at any time, regardless of the length of time a product has been on the market.

We are exposed to an increased risk of product liability claims.

The testing, marketing and sales of medical products entails an inherent risk of allegations of product liability. In the past, we were party to product liability claims filed against Genentech Inc. and, even though Genentech agreed to indemnify us in connection with these matters and these matters have been settled, there can be no assurance other product liability lawsuits will not result in liability to us or that our insurance or contractual arrangements will provide us with adequate protection against such liabilities. In the event of one or more large, unforeseen awards of damages against us, our product liability insurance may not provide adequate coverage. A significant product liability claim for which we were not covered by insurance or indemnified by a third party would have to be paid from cash or other assets, which could have an adverse effect on our business and the value of our common stock. To the extent we have sufficient insurance coverage, such a claim would result in higher subsequent insurance rates. In addition, product liability claims can have various other ramifications, including loss of future sales opportunities, increased costs associated with replacing products, a negative impact on our goodwill and reputation, and divert our management's attention from our business, each of which could also adversely affect our business and operating results.

If we and our partners are unable to protect our intellectual property, in particular our patent protection for our principal products, product candidates and processes, and prevent the use of the covered subject matter by third parties, our licensees' ability to compete in the market will be harmed, and we may not realize our profit potential.

We rely on patent protection, as well as a combination of copyright, trade secret, and trademark laws to protect our proprietary technology and prevent others from duplicating our products or product candidates. However, these means may afford only limited protection and may not:

- prevent our competitors from duplicating our products;
- prevent our competitors from gaining access to our proprietary information and technology; or
- permit us to gain or maintain a competitive advantage.

Because of the length of time and the expense associated with bringing new products to the marketplace, we and our partners hold and are in the process of applying for a number of patents in the United States and abroad to protect our product candidates and important processes and also have obtained or have the right to obtain exclusive licenses to certain patents and applications filed by others. However, the mere issuance of a patent is not conclusive as to its validity or its enforceability.

The U.S. Federal Courts, the U.S. Patent & Trademark Office or equivalent national courts or patent offices elsewhere may invalidate our patents or find them unenforceable. The America Invents Act introduced post-grant review procedures subjecting U.S. patents to post-grant review procedures similar to European oppositions. U.S. patents owned or licensed by us may therefore be subject to post-grant review procedures, as well as other forms of review and re-examination. A decision in such proceedings adverse to our interests could result in the loss of valuable patent rights, which would have a material adverse effect on our business. In addition, the laws of foreign countries may not protect our intellectual property rights effectively or to the same extent as the laws of the United States.

If our intellectual property rights are not protected adequately, our licensees may not be able to commercialize our technologies or products, and our competitors could commercialize our technologies or products, which could result in a decrease in our licensees' sales and market share that would harm our business and operating results. Specifically, the patent position of biotechnology companies generally is highly uncertain and involves complex legal and factual questions. The legal standards governing the validity of biotechnology patents are in transition, and current defenses as to issued biotechnology patents may not be adequate in the future. Accordingly, there is uncertainty as to:

- whether any pending or future patent applications held by us will result in an issued patent, or whether issued patents will provide meaningful protection against competitors or competitive technologies;
- whether competitors will be able to design around our patents or develop and obtain patent protection for technologies, designs or methods that are more effective than those covered by our patents and patent applications; or
- the extent to which our product candidates could infringe on the intellectual property rights of others, which may lead to costly litigation, result in the payment of substantial damages or royalties, and prevent our licensees from using our technology or product candidates.

If certain patents issued to others are upheld or if certain patent applications filed by others are issued and upheld, our licensees may require licenses from others to develop and commercialize certain potential products incorporating our technology or we may become involved in litigation to determine the proprietary rights of others. These licenses, if required, may not be available on acceptable terms, and any such litigation may be costly and may have other adverse effects on our business, such as inhibiting our licensees' ability to compete in the marketplace and absorbing significant management time.

Due to the uncertainties regarding biotechnology patents, we also have relied and will continue to rely upon trade secrets, know-how and continuing technological advancement to develop and maintain our competitive position. Our

employees and contractors are typically required to sign confidentiality agreements under which they agree not to use or disclose any of our proprietary information. Research and development contracts and relationships between us and our scientific consultants and potential licensees provide access to aspects of our know-how that are protected generally under confidentiality agreements. These confidentiality agreements may be breached or may not be enforced by a court. To the extent proprietary information is divulged to competitors or to the public generally, such disclosure may affect our licensees' ability to develop or commercialize our products adversely by giving others a competitive advantage or by undermining our patent position.

Litigation regarding intellectual property and/or the enforcement of our contractual rights against licensees and third parties can be costly and expose us to risks of counterclaims against us.

We may be required to engage in litigation or other proceedings to protect our intellectual property and/or enforce our contractual rights against former or current licensees or third-parties, including third-party collaborators of such licensees. The cost to us of this litigation, even if resolved in our favor, could be substantial. Such litigation and any negotiations leading up to it also could divert management's attention and resources. If this litigation is resolved against us, we may lose the value associated with contract rights contained in our arrangements with licensees and third-parties, our patents may be declared invalid, and we could be held liable for significant damages. While it is our current plan to pursue, on a selective basis, potential material contractual breaches against licensees and third-parties (including third-party collaborators of licensees) and/or infringement of our intellectual property rights, there can be no assurance that any such enforcement actions will be successful, or if successful, the timing of such success or that we will have sufficient capital to prosecute any such actions to a successful conclusion.

In addition, we may be subject to claims that we, or our licensees, are infringing other parties' patents. If such claims are resolved against us, we or our licensees may be enjoined from developing, manufacturing, selling or importing products, processes or services unless we obtain a license from the other party. Such license may not be available on reasonable terms, thus preventing us, or our licensees, from using these products, processes or services and adversely affecting our revenue.

Risks Related to Employees, Location, Data Integrity, and Litigation

The loss of key personnel, including our Chief Executive Officer or Chief Financial Officer, could delay or prevent achieving our objectives.

Our business efforts could be affected adversely by the loss of one or more key members of our staff, particularly our executive officers: James R. Neal, our Chief Executive Officer and Thomas Burns, our Senior Vice President, Finance and Chief Financial Officer. We currently do not have key person insurance on any of our employees.

Because we are a small biopharmaceutical focused company with limited resources, we may not be able to attract and retain qualified personnel.

After a series of restructuring activities during 2016 and 2017, we had 11 employees as of March 4, 2019. We may require additional experienced executive, accounting, legal, administrative and other personnel from time to time in the future. There is intense competition for the services of these personnel, especially in California. Moreover, we expect that the high cost of living in the San Francisco Bay Area, where our headquarters are located, may impair our ability to attract and retain employees in the future. If we do not succeed in attracting new personnel and retaining and motivating existing personnel, our business may suffer and we may be unable to implement our current initiatives or grow effectively.

Calamities, power shortages or power interruptions at our Emeryville headquarters could disrupt our business and adversely affect our operations.

Our principal operations are located in Northern California, including our corporate headquarters in Emeryville, California. This location is in an area of seismic activity near active earthquake faults. Any earthquake, terrorist attack, fire, power shortage or other calamity affecting our facilities may disrupt our business and could have material adverse effect on our results of operations.

Our business and operations would suffer in the event of system failures.

Despite the implementation of security measures, our internal computer systems and those of our current and any future licensees, suppliers, contractors and consultants are vulnerable to damage from cyberattacks, computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. We could experience failures in our information systems and computer servers, which could be the result of a cyberattacks and could result in an interruption of our normal business operations and require substantial expenditure of financial and administrative resources to remedy. System failures, accidents or security breaches can cause interruptions in our operations and can result in a material disruption of our development programs and other business operations. The loss of clinical trial data from completed or future clinical trials could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. Similarly, we rely on third parties to manufacture our product candidates, and conduct clinical trials of our product candidates, and similar events relating to their computer systems could also have a material adverse effect on our business. To the extent that any disruption or security breach were to result in a loss of, or damage to, our data or applications, or inappropriate disclosure of confidential or proprietary information, we could incur liability and the development of any of our product candidates could be delayed or otherwise adversely affected.

Data breaches and cyberattacks could compromise our intellectual property or other sensitive information and cause significant damage to our business and reputation.

In the ordinary course of our business, we maintain sensitive data on our networks, including our intellectual property and proprietary or confidential business information relating to our business and that of our customers and business partners. The secure maintenance of this information is critical to our business and reputation. We believe companies have been increasingly subject to a wide variety of security incidents, cyberattacks and other attempts to gain unauthorized access. These threats can come from a variety of sources, all ranging in sophistication from an individual hacker to a state-sponsored attack. Cyber threats may be generic, or they may be custom-crafted against our information systems. Cyberattacks have become more prevalent and much harder to detect and defend against. Our network and storage applications may be subject to unauthorized access by hackers or breached due to operator error, malfeasance or other system disruptions. It is often difficult to anticipate or immediately detect such incidents and the damage caused by such incidents. These data breaches and any unauthorized access or disclosure of our information or intellectual property could compromise our intellectual property and expose sensitive business information. A data security breach could also lead to public exposure of personal information of our clinical trial patients, customers and others which could expose us to liability under federal or state privacy laws. Cyberattacks can result in the theft of proprietary information which could be used to compete against us and could cause us to incur significant remediation costs, result in product development delays, disrupt key business operations and divert attention of management and key information technology resources. These incidents could also subject us to liability, expose us to significant expense and cause significant harm to our reputation and business.

Significant disruptions of information technology systems, including cloud-based systems, or breaches of data security could adversely affect our business.

Our business is increasingly dependent on critical, complex and interdependent information technology systems, including cloud-based systems, to support business processes as well as internal and external communications. Our computer systems, and those of our partners and contractors, are potentially vulnerable to breakdown, malicious intrusion and computer viruses that may result in the impairment of key business processes. Such disruptions and breaches of security could have a material adverse effect on our business, financial condition and results of operations.

In addition, our data security and information technology systems, as well as those of our partners and contractors, are potentially vulnerable to data security breaches, whether by employees or others, that may expose sensitive data or personal information to unauthorized persons. Effective May 25, 2018, the European Union (“EU”) implemented the General Data Protection Regulation (“GDPR”) a broad data protection framework that expands the scope of current EU data protection law to non-European Union entities that process, or control the processing of, the personal information of EU subjects, including clinical trial data. The GDPR allows for the imposition of fines and/or corrective action on entities that improperly use or disclose the personal information of EU subjects, including through a data security breach. Also, in June 2018, the State of California enacted the California Consumer Privacy Act of 2018, that will go into effect beginning January 1, 2020, which will also likely require us to expend significant time and resources to prepare for compliance. Accordingly, data security breaches experienced by us, our partners or contractors could lead to significant fines, required corrective action, the loss of trade secrets or other intellectual property, public disclosure of sensitive clinical or commercial data, and the exposure of personally identifiable information (including sensitive personal information) of our employees, partners, and others. A data security breach or privacy violation that leads to disclosure or modification of, or prevents access to, patient information, including personally identifiable information or protected health information, could result in fines, increased costs or loss of revenue as a result of:

- harm to our reputation;
- fines imposed on us by regulatory authorities;
- additional compliance obligations under federal, state or foreign laws;

- requirements for mandatory corrective action to be taken by us; and
- requirements to verify the correctness of database contents and otherwise subject us to liability under laws and regulations that protect personal data.

If we are unable to prevent such data security breaches or privacy violations or implement satisfactory remedial measures, our operations could be disrupted, and we may suffer loss of reputation, financial loss and other regulatory penalties because of lost or misappropriated information, including sensitive patient data. In addition, these breaches and other inappropriate access can be difficult to detect, and any delay in identifying them may lead to increased harm of the type described above. Moreover, 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, trade secrets or other intellectual property. While we have implemented security measures to protect our data security and information technology systems, such measures may not prevent such events. We expect that there will continue to be new proposed laws, regulations and industry standards relating to privacy and data protection in the United States, the EU and other

jurisdictions, such as the California Consumer Privacy Act of 2018, which has been characterized as the first "GDPR-like" privacy statute to be enacted in the United States because it mirrors a number of the key provisions in the GDPR. We cannot presently determine the impact such laws, regulations and standards will have on our business. In any event, 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 healthcare or privacy laws, including the GDPR, in light of the lack of applicable precedent and regulations.

Shareholder lawsuits, and potential similar or related lawsuits, could result in substantial damages, divert management's time and attention from our business, and have a material adverse effect on our results of operations.

Securities-related class action and shareholder derivative litigation has often been brought against companies, including many biotechnology companies, which experience volatility in the market price of their securities. This risk is especially relevant for us because biotechnology and biopharmaceutical companies often experience significant stock price volatility in connection with their product development programs.

It is possible that suits will be filed, or allegations received from stockholders, naming us and/or our officers and directors as defendants. These potential lawsuits are subject to inherent uncertainties, and the actual defense and disposition costs will depend upon many unknown factors. The outcome of these lawsuits are uncertain. We could be forced to expend significant resources in the defense of these suits and we may not prevail. In addition, we may incur substantial legal fees and costs in connection with these lawsuits. It is possible that we could, in the future, incur judgments or enter into settlements of claims for monetary damages. A decision adverse to our interests on these actions could result in the payment of substantial damages, or possibly fines, and could have a material adverse effect on our cash flow, results of operations and financial position.

Monitoring, initiating and defending against legal actions, including any currently pending litigation, are time-consuming for our management, are likely to be expensive and may detract from our ability to fully focus our internal resources on our business activities. The outcome of litigation is always uncertain, and in some cases could include judgments against us that require us to pay damages, enjoin us from certain activities, or otherwise affect our legal or contractual rights, which could have a significant adverse effect on our business. In addition, the inherent uncertainty of any future litigation could lead to increased volatility in our stock price and a decrease in the value of an investment in our common stock.

Risks Related to Government Regulation

Even after FDA approval, a product may be subject to additional testing or significant marketing restrictions, its approval may be withdrawn or it may be removed voluntarily from the market.

Even if our licensees receive regulatory approval for our product candidates, our licensees will be subject to ongoing regulatory oversight and review by the FDA and other regulatory entities. The FDA, the European Medicines Agency ("EMA"), or another regulatory agency may impose, as a condition of the approval, ongoing requirements for post-approval studies or post-approval obligations, including additional research and development and clinical trials, and the FDA, EMA or other regulatory agency subsequently may withdraw approval based on these additional trials.

Even for approved products, the FDA, EMA or other regulatory agency may impose significant restrictions on the indicated uses, conditions for use, labeling, advertising, promotion, marketing and production of such product. In addition, the labeling, packaging, adverse event reporting, storage, advertising, promotion and record-keeping for our products are subject to extensive regulatory requirements.

Furthermore, marketing approval of a product may be withdrawn by the FDA, the EMA or another regulatory agency or such product may be withdrawn voluntarily by our partners based, for example, on subsequently arising safety concerns. The FDA, EMA and other agencies also may impose various civil or criminal sanctions for failure to comply with regulatory requirements, including withdrawal of product approval.

Healthcare reform measures and other statutory or regulatory changes could adversely affect our business.

The United States and some foreign jurisdictions have enacted or are considering a number of legislative and regulatory proposals to change the healthcare system in ways that could affect our licensees' ability to sell our products, if approved, profitably. Among policy makers and payers in the United States and elsewhere, there is significant interest in promoting changes in healthcare systems with the stated goals of containing healthcare costs, improving quality and expanding access. In the United States, the pharmaceutical industry has been a particular focus of these efforts and has been significantly affected by major legislative initiatives.

An expansion in the government's role in the U.S. healthcare industry may cause general downward pressure on the prices of prescription drug products, lower reimbursements for providers, reduced product utilization and adversely affect our business and results of operations. Moreover, certain politicians have announced plans to regulate the prices of pharmaceutical products. We cannot

know what form any such legislation may take or the market's perception of how such legislation would affect us. Any reduction in reimbursement from government programs may result in a similar reduction in payments from private payors. The implementation of cost containment measures or other healthcare reforms may prevent our licensees from being able to generate revenue, attain profitability, or commercialize our current product candidates and those for which we may receive regulatory approval in the future. In addition, given the uncertainties related to the Trump Administration's stated goal of letting the Affordable Care Act (the "ACA") fail, we cannot be certain that current provisions of the ACA will continue to cover prescription drug products.

We and our licensees are subject to various state and federal healthcare-related laws and regulations that may impact the commercialization of our product candidates or could subject us to significant fines and penalties.

Our operations may be directly or indirectly subject to various state and federal healthcare laws, including the federal Anti-Kickback Statute, the federal False Claims Act and state and federal privacy and security laws. These laws may impact, among other things, the commercial operations for any of our product candidates that may be approved for commercial sale.

The federal Anti-Kickback Statute prohibits persons from knowingly and willfully soliciting, offering, receiving or providing remuneration, directly or indirectly, in exchange for or to induce either the referral of an individual, or the furnishing or arranging for a good or service for which payment may be made under a federal healthcare program, such as the Medicare and Medicaid programs. Several courts have interpreted the statute's intent requirement to mean that if any one purpose of an arrangement involving remuneration is to induce referrals of federal healthcare covered business, the statute has been violated. The Anti-Kickback Statute is broad and prohibits many arrangements and practices that are lawful in businesses outside of the healthcare industry. Penalties for violations of the federal Anti-Kickback Statute include criminal penalties and civil sanctions such as fines, penalties, imprisonment and possible exclusion from Medicare, Medicaid and other federal healthcare programs.

The federal False Claims Act prohibits persons from knowingly filing, or causing to be filed, a false claim to, or the knowing use of false statements to obtain payment from the federal government. Suits filed under the False Claims Act, known as "qui tam" actions, can be brought by any individual on behalf of the government and such individuals, commonly known as "whistleblowers," may share in any amounts paid by the entity to the government in fines or settlement. The filing of qui tam actions has caused a number of pharmaceutical, medical device and other healthcare companies to have to defend a False Claims Act action. When an entity is determined to have violated the False Claims Act, it may be required to pay up to three times the actual damages sustained by the government, plus civil penalties for each separate false claim. Various states also have enacted laws modeled after the federal False Claims Act.

The Federal Health Insurance Portability and Accountability Act of 1996 ("HIPAA") created new federal criminal statutes that prohibit executing a scheme to defraud any healthcare benefit program and making false statements relating to healthcare matters. The health care fraud statute prohibits knowingly and willfully executing a scheme to defraud any health care benefit program, including private payors. The statute prohibits knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of, or payment for, health care benefits, items or services. HIPAA, as amended by the Health Information Technology and Clinical Health Act, and its implementing regulations, also imposes certain requirements relating to the privacy, security and transmission of individually identifiable health information. We take our obligation to maintain our compliance with these various laws and regulations seriously.

Many states also have adopted laws similar to each of the federal laws described above, some of which apply to healthcare items or services reimbursed by any source, not only the Medicare and Medicaid programs. In addition, some states have laws that require pharmaceutical companies to comply with the pharmaceutical industry's voluntary

compliance guidelines and the applicable compliance guidance promulgated by the federal government, or otherwise restrict payments that may be made to healthcare providers and other potential referral sources, and to report information related to payments and other transfers of value to physicians and other healthcare providers; as well as state laws governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and may not have the same effect, thus complicating compliance efforts.

Because of the breadth of these laws, it is possible that some of our or our licensees' business activities could be subject to challenge under one or more of such laws.

If we or our licensees are found to be in violation of any of the laws and regulations described above or other applicable state and federal healthcare laws, we may be subject to penalties, including civil and criminal penalties, damages, fines, exclusion from government healthcare reimbursement programs and the curtailment or restructuring of our operations, any of which could have a material adverse effect on our business and results of operations.

As we or our licensees do more business internationally, we will be subject to additional political, economic and regulatory uncertainties.

We or our licensees may not be able to operate successfully in any foreign market. We believe that because the pharmaceutical industry is global in nature, international activities will be a significant part of future business activities and when and if we or our licensees are able to generate income, a substantial portion of that income will be derived from product sales and other activities outside the United States. Foreign regulatory agencies often establish standards different from those in the United States, and an inability to obtain foreign regulatory approvals on a timely basis could put us at a competitive disadvantage or make it uneconomical to proceed with a product or product candidate’s development. International sales may be limited or disrupted by:

- imposition of government controls;
- export license requirements;
- political or economic instability;
- trade restrictions;
- changes in tariffs;
- restrictions on repatriating profits;
- exchange rate fluctuations; and
- withholding and other taxation.

Item 1B. Unresolved Staff Comments
None.

Item 2. Properties
Our corporate headquarters is located in Emeryville, California. We currently lease three buildings that housed our office space and legacy research and development laboratories. Our building leases expire in the period from 2021 to 2023, and total minimum lease payments due from January 2019 until expiration of the leases is $14.9 million. We believe that our facilities are adequate to meet our requirements for the near term. We have entered into multiple sublease agreements for portions of our leased facilities. Under the terms of our sublease agreements, we are entitled to receive $7.9 million in base lease payments over the term of the subleases, which end at the same time as the original leases. We entered into a sublease agreement in January 2019 and will receive an additional $1.7 million in base lease payments over the term of the sublease, which ends at the same time as the original lease.

Item 3. Legal Proceedings
None.

Item 4. Mine Safety Disclosures
Not applicable.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market for Registrant's Common Equity

Our common stock trades on The Nasdaq Global Market tier of the Nasdaq Stock Market LLC ("Nasdaq") under the symbol "XOMA." On March 4, 2019, there were 207 stockholders of record of our common stock, one of which was Cede & Co., a nominee for Depository Trust Company ("DTC"). All of the shares of our common stock held by brokerage firms, banks and other financial institutions as nominees for beneficial owners are deposited into participant accounts at DTC and are therefore considered to be held of record by Cede & Co. as one stockholder.

Dividend Policy

We have not paid dividends on our common stock. We currently intend to retain any earnings for use in the operations of our business. We, therefore, do not anticipate paying cash dividends on our common stock in the foreseeable future.

Recent Sales of Unregistered Securities

Except as previously reported in our quarterly reports on Form 10-Q and current reports on Form 8-K filed with the Securities and Exchange Commission ("SEC"), during the year ended December 31, 2018, there were no unregistered sales of equity securities by us during the year ended December 31, 2018.

Item 6.Selected Consolidated Financial Data

We are a smaller reporting company as defined by Rule 12b-2 of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and are not required to provide the information required under this item.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

Overview

We have a long history of discovering and developing innovative therapeutics derived from our unique platform of antibody technologies. Over our extensive history, we built a pipeline of fully-funded programs discovered by our licensees and partners from direct use of our proprietary antibody discovery platform and from product candidates we discovered and advanced prior to licensing them to licensees who assumed the responsibilities of subsequent development, regulatory approval and commercialization. Fully-funded programs are those for which our partners pay the development and commercialization costs. As licensees advance these programs, we are eligible for potential development, regulatory and commercial milestone and royalty payments. As part of our royalty aggregator business model, we intend to continue to expand our pipeline of fully-funded programs by acquiring potential milestone and royalty revenue streams on additional product candidates from third parties.

Significant Developments in 2018

Rights Offering

In November 2018, we initiated a rights offering to raise $20.0 million through the distribution of subscription rights to holders of our common stock and Series X preferred stock. In December 2018, we sold 285,689 shares of our common stock at the subscription price of $13.00 per share and 1,252.772 shares of our Series Y convertible preferred stock to Biotechnology Value Fund, L.P. ("BVF") at the subscription price of $13,000.00 per share pursuant to the exercise of subscriptions in the rights offering for aggregate gross proceeds of $20.0 million.

2018 ATM Agreement

On December 18, 2018, we entered into an At The Market Issuance Sales Agreement (the "2018 ATM Agreement") with H.C. Wainwright & Co., LLC ("HCW"), under which we may offer and sell from time to time at our sole discretion shares of our common stock through HCW as our sales agent, in an aggregate amount not to exceed $30.0 million. HCW may sell the shares by any method permitted by law deemed to be an "at the market" offering as defined in Rule 415 of the Securities Act, and will use its commercially reasonable efforts consistent with its normal trading and sales practices to sell the shares up to the amount specified. We will pay HCW a commission of 3% of the gross proceeds of any shares of common stock sold under the 2018 ATM Agreement. As of December 31, 2018, we have not sold any shares of common stock under the 2018 ATM Agreement.

Agenus

On September 20, 2018, we entered into a Royalty Purchase Agreement with Agenus. Under the Royalty Purchase Agreement, we purchased from Agenus the right to receive 33% of the future royalties due to Agenus from Incyte (net of certain royalties payable by Agenus to a third party) and 10% of all future developmental, regulatory and sales milestones on sales of six Incyte immuno-oncology assets, with the exception of an expected near-term milestone associated with the entry of INCAGN2390 (anti-TIM-3) into the clinical trial. In addition, we purchased from Agenus the right to receive 33% of the future royalties due to Agenus from Merck and 10% of all future developmental, regulatory and sales milestones on sales of an undisclosed Merck immuno-oncology product currently in clinical development. Pursuant to the Royalty Purchase Agreement, our share in future potential development, regulatory and commercial milestones is up to $59.5 million and the royalties have no limit. Under the terms of the Royalty Purchase Agreement, we paid Agenus $15.0 million. We financed $7.5 million of the purchase with a term loan under our Loan and Security Agreement with SVB dated May 7, 2018.

Silicon Valley Bank Loan Agreement

In May 2018, we executed a Loan and Security Agreement (the “Loan Agreement”) with SVB. Under the Loan Agreement, upon our request, SVB may make advances available to us up to $20.0 million. As of December 31, 2018, we borrowed $7.5 million under the Loan Agreement.

Rezolute

In December 2017, we entered into a license and common stock purchase agreement with Rezolute, which was amended on March 30, 2018. On April 3, 2018, Rezolute closed a debt financing activity for gross proceeds of $4.0 million, which triggered the Initial Closing defined under the amended common stock purchase agreement between us and Rezolute. As such, pursuant to the terms of the amended common stock purchase agreement with Rezolute, we received 8,023,758 shares of Rezolute's common stock and cash of $0.5 million. In addition, in April 2018, we received from Rezolute the 69,252 shares of common stock and cash of $50,000 in connection with the Interim Financing Closing that occurred during the three months ended March 31, 2018. Under the amended license agreement, we are also entitled to receive $0.3 million of reimbursable technology transfer expenses from Rezolute.

Critical Accounting Estimates

The accompanying discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements and the related disclosures, which have been prepared in accordance with generally accepted accounting principles in the United States. The preparation of these consolidated financial statements requires us to make estimates, assumptions and judgments that affect the reported amounts in our consolidated financial statements and accompanying notes. On an ongoing basis, we evaluate our estimates, assumptions and judgments described below that have the greatest potential impact on our consolidated financial statements, including those related to revenue recognition and stock-based compensation. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Accounting assumptions and estimates are inherently uncertain and actual results may differ materially from these estimates under different assumptions or conditions.

While our significant accounting policies are more fully described in Note 2 to the consolidated financial statements, we believe the following policies to be the most critical to an understanding of our financial condition and results of operations because they require us to make estimates, assumptions and judgments about matters that are inherently uncertain.

Revenue Recognition

Effective January 1, 2018, we adopted Accounting Standards Codification ("ASC") Topic 606, Revenue from Contracts with Customers ("ASC 606") using the modified retrospective transition method and applied the standard only to contracts that were still active or in place at that date. Also, as permitted, we applied the practical expedient under ASC 606 which permits us to treat all contract modifications that occurred prior to the adoption in aggregate when determining the performance obligations, transaction price and its allocation. Except for the license agreement with Rezolute, we did not have any other contracts with customers for which we had not completed our performance obligations, as of the adoption date January 1, 2018. The license agreement with Rezolute was not considered a contract under ASC 606 as it was not probable that we would collect substantially all of the consideration to which we were entitled in exchange for the goods or services that were transferred to Rezolute and there was no consideration exchanged upon execution of the arrangement or as of January 1, 2018. Thus, we determined that the adoption of ASC 606 did not have a financial impact on our consolidated financial statements. In addition, the adoption of ASC 606 had no material impact for tax purposes.

We have certain license arrangements in the scope of ASC 606. The terms of these agreements may contain multiple performance obligations, which primarily include transfer of our licenses. Prior to recognizing revenue, we make estimates of the transaction price, including variable consideration that is subject to a constraint. Amounts of variable consideration are included in the transaction price to the extent that it is probable that a significant reversal in the

amount of cumulative revenue recognized will not occur and when the uncertainty associated with the variable consideration is subsequently resolved. Variable consideration may include payments based upon the achievement of specified milestones, and royalty payments based on product sales derived from the license agreements. The royalty payments will be recognized as revenue when the related sales occur, as far as there are no unsatisfied performance obligations remaining. If there are multiple distinct performance obligations, we allocate the transaction price to each distinct performance obligation based on its relative standalone selling price. All licenses we grant to customers are unique, as each uses a specific technology of XOMA or is geared towards a specific unique product candidate. Thus, there is no observable evidence of standalone selling price for the licenses. The standalone selling price is generally determined using a valuation approach based on discounted cash flow analysis. For licenses that are bundled with other promises, we utilize judgement to assess the nature of the combined performance obligation to determine whether the combined performance obligation is satisfied over time or at a point in time. Under our license agreements, the nature of the combined performance obligation is the granting of licenses to the customers. As such, we recognize revenue related to the combined performance obligation upon transfer of the license to the customers or completion of the transfer of related materials and services (i.e., point in time).

Stock-based Compensation

Stock-based compensation expense for stock options and other stock awards is estimated at the grant date based on the award's fair value-based measurement. The valuation of stock-based compensation awards is determined at the date of grant using the Black-Scholes option pricing model (the "Black-Scholes Model"). This model requires highly complex and subjective inputs, such as the expected term of the option and expected volatility. These inputs are subjective and generally require significant analysis and judgment to develop. Our current estimate of volatility is based on the historical volatility of our stock price. To the extent volatility in our stock price increases in the future, our estimates of the fair value of options granted in the future could increase, thereby increasing stock-based compensation cost recognized in future periods. To establish an estimate of expected term, we consider the vesting period and contractual period of the award and our historical experience of stock option exercises, post-vesting cancellations and volatility. The risk-free rate is based on the yield available on United States Treasury zero-coupon issues. Forfeitures are recognized as they occur.

We review our valuation assumptions quarterly and, as a result, we likely will change our valuation assumptions used to value stock-based awards granted in future periods. In the future, as additional empirical evidence regarding these input estimates becomes available, we may change or refine our approach of deriving these input estimates. These changes could impact our fair value-based measurement of stock options granted in the future. Changes in the fair value-based measurement of stock awards could materially impact our operating results.

For our stock options and service-based awards, we recognize compensation expense on a straight-line basis over the award's vesting period. In 2017, we granted to certain employees equity awards with performance-based conditions. The actual number of equity awards earned and eligible to vest will be determined based on a specified level of achievement against a Board-approved budget and operational targets. For awards with performance-based conditions, at the point that it becomes probable that the performance conditions will be met, we record a cumulative catch-up of the expense from the grant date to the current date, and we then amortize the remainder of the expense over the remaining service period. Management evaluates when the achievement of a performance-based condition is probable based on the expected satisfaction of the performance conditions as of the reporting date. The amount of stock-based compensation expense recognized during a period is based on the value of the portion of the awards that are ultimately expected to vest.

Purchase of Rights to Future Milestones and Royalties

We have purchased rights to receive a portion of certain future developmental, regulatory and commercial sales milestones, and royalties on sales of products currently in clinical development. We acquired such rights from Agenus in September 2018 and recorded the amount paid for these rights as long-term royalty receivables. We have accounted for the purchased rights as a financial asset in accordance with ASC 310, Receivables.

We account for milestone and royalty rights related to developmental pipeline products on a non-accrual basis using the cost recovery method. These developmental pipeline products are non-commercialized, non-approved products that require FDA or other regulatory approval, and thus have uncertain cash flows. We are not yet able to forecast future cash flows given their pre-commercial stages of development. The related receivable balance is classified as noncurrent since no payments are probable to be received in the near term. Under the cost recovery method, any milestone or royalty received is recorded as a direct reduction of the recorded receivable balance. When the recorded receivable balance has been fully collected, any additional amounts collected are recognized as revenue.

We review any impairment indicators and changes in expected recoverability of the long-term receivable asset regularly. If expected future cash flows discounted to the current period are less than the carrying value of the asset, we will record impairment. The impairment will be recognized by reducing the financial asset to an amount that

represents the present value of the most recent estimate of cash flows. No impairment was recorded as of December 31, 2018.

Results of Operations

Revenues

Total revenues for the years ended December 31, 2018, and 2017 were as follows (in thousands):

	Year Ended December 31,		2017-2018 Change
	2018	2017	
Revenue from contracts with customers	$5,068	$52,428	$ (47,360)
Revenue recognized under units-of-revenue method	231	262	$ (31)
Total revenues	$5,299	$52,690	$ (47,391)

Revenue from Contracts with Customers

Revenue from contracts with customers includes upfront fees, milestone payments and royalties related to the out-licensing of our product candidates and technologies. The primary components of revenue from contracts with customers in 2018 was $1.8 million recognized under our license agreement and common stock purchase agreement with Rezolute, $1.4 million in milestone revenue earned under our license agreement with Janssen Biotech, Inc. and $0.8 million in milestone revenue earned under our license agreement with Compugen.

The primary components of revenue from contracts with customers in 2017 were $40.2 million of license and collaborative fee revenue recognized in connection with the license agreements with Novartis AG and $10.0 million in milestone revenue earned under our license agreement with Novartis International Pharmaceutical Ltd.

Revenue recognized under units-of-revenue method

Revenues in 2017 and 2018 include the amortization of unearned revenue from the sale of royalty interests to HealthCare Royalty Partners II, L.P. in December 2016. Additionally, during the third quarter of 2018, the Shire product underlying the Dyax Corp. license agreement was approved, and we began recognizing revenue under the units-of-revenue method due to sales of the approved product.

The generation of future revenues related to licenses, milestones, and royalties is dependent on our ability to attract new licensees to our antibody technologies, and the achievement of milestones or product sales by our existing licensees.

Research and Development Expenses

Research and development (“R&D”) expenses primarily include salaries and related expenses for R&D personnel who evaluate the scientific characteristics of our potential acquisitions of future milestones and royalty streams. R&D expenses were $1.7 million in 2018, compared with $7.9 million in 2017. The decrease of $6.2 million in 2018, as compared with 2017, was primarily due to the implementation of our royalty-aggregator business model during the first quarter of 2017, which included the cessation of substantially all development activities. The decrease primarily consisted of $1.9 million in clinical trial costs, $1.4 million in consulting costs, $1.2 million in the allocation of facilities costs, $0.5 million in stock-based compensation, and a $0.4 million in salaries and related expenses. The decrease in allocation of facilities costs is a result of a decreased proportion of R&D employees due to our restructuring activities in December 2016 and June 2017.

As our business model has changed, so has our research and development spending activity. For the year ended December 31, 2018, we did not incur significant expenses for internally developed projects.

For the year ended December 31, 2017, X358, for which we incurred the largest amount of expenses, accounted for between 40% and 50% of our total research and development expenses. Each of our remaining development programs accounted for less than 10% of our total research and development expenses. Due to our change in business model, for the third and fourth quarters of 2017, we did not incur significant expenses for internally developed projects.

We expect our R&D spending in 2019 to remain comparable to 2018 levels.

General and Administrative Expenses

General and administrative (“G&A”) expenses include salaries and related personnel costs, facilities costs and professional fees. In 2018, G&A expenses were $18.6 million compared with $24.3 million in 2017. The decrease of

$5.7 million in 2018 as compared with 2017 was primarily due to decreases of $2.9 million in stock-based compensation, $2.1 million in consulting services, and $0.5 million in information technology costs, partially offset by an increase of $1.2 million in the allocation of facilities costs due to a greater proportion of G&A personnel compared to R&D personnel after our restructuring activities.

To support our royalty aggregator business model, we engage third parties to assist in our evaluation of potential acquisitions of milestone and royalty streams. While we expect our personnel related costs to be comparable in 2019 with 2018, consulting expenses may increase in response to an increase in the volume of acquisition targets evaluated or completed.

Restructuring and Other Charges

In December 2016, we announced a restructuring of our business based on our decision to focus our efforts on clinical development, with an initial focus on the X358 clinical programs. The restructuring included a reduction-in-force in which we terminated 57 employees, which was implemented in December 2016 (the "2016 Restructuring"). In early 2017, we further revised our strategy to prioritize out-licensing activities and further curtail research and development spending and we eliminated an additional five employees with an effective termination date of June 30, 2017 (the "2017 Restructuring"). During the year ended December 31, 2017, we recorded charges of $3.4 million related to severance, other termination benefits and outplacement services for the 2016 Restructuring and 2017 Restructuring activities. There were no such charges during the year ended December 31, 2018.

During the year ended December 31, 2018, we completely vacated both of our leased facilities in Berkeley, California and met the criteria of a cease-use date. We recorded a lease-related restructuring liability of $1.4 million as of December 31, 2018, which was adjusted for the remaining balance of deferred rent of $0.7 million. This resulted in us recording lease-related restructuring charges of $1.3 million for the year ended December 31, 2018. In addition, in connection with the sublease agreement executed in April 2018, we recognized a loss on the sublease of $0.6 million for year ended December 31, 2018.

Other Income (Expense)

Interest Expense

Amortization of debt issuance costs and discounts are included in interest expense. Interest expense is shown below for the years ended December 31, 2018 and 2017 (in thousands):

	Year Ended December 31,		2017-2018 Change
	2018	2017	
Novartis note	$627	$490	137
SVB loan	258	—	258
Servier loan	—	431	(431)
Hercules loan	—	311	(311)
Other	37	6	31
Total interest expense	$922	$1,238	$ (316)

The decrease in interest expense compared with 2017 is primarily due to the March 2017 payoff of the Hercules loan and August 2017 payoff of the Servier Loan. On May 7, 2018, we executed a loan agreement with SVB and on September 21, 2018 we borrowed advances of $7.5 million. We expect our interest expense to increase in 2019 related to the outstanding SVB loan balance and to increase further if we choose to access additional funds.

Loss on Extinguishment of Debt

In March 2017, we paid off our outstanding principal balance, final payment fee and accrued interest totaling $6.5 million under our loan and security agreement with Hercules, and we were not required to pay the 1% prepayment charge pursuant to the terms of the loan. We recognized a loss on extinguishment of $0.5 million from the payoff of the Hercules term loan.

Other Income, Net

The following table shows the activity in other income (expense), net for the years ended December 31, 2018 and 2017 (in thousands):

	Year Ended December 31,		2017-2018 Change
	2018	2017	
Other income (loss), net			
Income under the agreement with Ology Bioservices	$2,470	$2,150	$ 320
Sublease income (loss)	1,787	(751)	2,538
Change in fair value of long-term equity securities	(563)	—	(563)
Realized foreign exchange gain (loss)	20	(1,635)	1,655
Gain on sale and disposal of equipment	—	1,226	(1,226)
Other	624	125	499
Total other income (loss), net	$4,338	$1,115	$ 3,223

The income under the agreement with Ology Bioservices was due to payments we received from Ology Bioservices during the years ended December 31, 2018 and 2017 related to the disposition of our biodefense business in March 2016 and no further payments are due. During the year ended December 31, 2018, we held long-term equity securities which consisted of shares of Rezolute's common stock. As of December 31, 2018, the fair value of the long-term equity securities decreased and we recognized a loss of $0.6 million for the year ended December 31, 2018. For the year ended December 31, 2017, the realized foreign exchange loss of $1.6 million was primarily related to re-measurement of the Servier Loan which was paid in 2017. The gain of $1.2 million on the sale and disposal of equipment for the year ended December 31, 2017 is related to the sale and disposal of equipment located in one of our leased facilities.

Provision for Income Taxes

We had $0.1 million income tax benefit for the year ended December 31, 2018 related to our 2017 return to provision adjustment. No other provision was made for federal income tax since we have incurred net operating losses during the year ended December 31, 2018. Our $1.7 million provision for income taxes for the year ended December 31, 2017 differs from the amounts computed by multiplying the federal statutory rate by income before taxes primarily due to a reduction in the valuation allowance and the use of a tax credit carryforward. As of December 31, 2018 and December 31, 2017, we had a total of $4.5 million of net unrecognized tax benefits, none of which would affect the effective tax rate upon realization. We do not expect our unrecognized tax benefits to change significantly over the next twelve months.

On December 22, 2017, the U.S. enacted the Tax Cuts and Jobs Act (the "Tax Act"), which significantly changed U.S. tax law. The Tax Act lowered the Company's U.S. statutory federal income tax rate from 35% to 21% effective January 1, 2018, while also imposing a deemed repatriation tax on previously deferred foreign income among other tax changes. In accordance with U.S. Securities and Exchange Commission Staff Accounting Bulletin No. 118, ("SAB 118"), the effects of the Tax Act may be adjusted within a one-year measurement period from the enactment date. We have completed our accounting for the income tax effects of the Tax Act during 2018 in accordance with SAB 118. We have no deferred foreign earnings that would result in Section 965 transition tax. There was also no financial impact on the re-measurement of our deferred tax assets and liabilities and corresponding valuation allowance as reported on December 31, 2017. Our income tax provision for the year ended December 31, 2018 did not reflect any adjustment to the previously assessed Tax Act enactment effect.

Liquidity and Capital Resources

The following table summarizes our cash and cash equivalents, our working capital and our cash flow activities for each of the periods presented (in thousands):

	December 31,		
	2018	2017	Change
Cash and cash equivalents	$45,780	$43,471	$2,309
Working capital	$41,923	$36,773	$5,150

	Year Ended December 31,		2017-2018
	2018	2017	Change
Net cash (used in) provided by operating activities	$(12,644)	$2,686	$(15,330)
Net cash (used in) provided by investing activities	(15,006)	1,606	(16,612)
Net cash provided by financing activities	29,939	13,258	16,681

Effect of exchange rate changes on cash	20	179	(159)
Net increase in cash and cash equivalents	$2,309	$17,729	$(15,420)

Cash (Used in) Provided by Operating Activities

Net cash used in operating activities for the year ended December 31, 2018 of $12.6 million was primarily due to the $13.3 million net loss incurred.

Net cash provided by operating activities for the year ended December 31, 2017 was primarily due to the $25.7 million cash receipts under the license agreements executed with Novartis AG in August 2017, which was offset by the $14.3 million non-cash license fee recognized related to the repayment of principal under the Servier Loan and $6.9 million payments for restructuring related liabilities.

Cash (Used in) Provided by Investing Activities

Net cash used in investing activities for the year ended December 31, 2018 of $15.0 million was due to the purchase of milestone and royalty rights of $15.0 million in connection with the Agenus Royalty Purchase Agreement executed in September 2018.

Net cash provided by investing activities for the year ended December 31, 2017 of $1.6 million was primarily related to proceeds from the sale of equipment.

Cash Provided by Financing Activities

Net cash provided by financing activities for the year ended December 31, 2018 of $30.0 million was primarily related to the sale of Series Y convertible preferred stock and common stock issued under the rights offering for total net proceeds of $19.7 million and proceeds received under the SVB loan agreement of $7.5 million.

Net cash provided by financing activities for the year ended December 31, 2017 of $13.3 million was primarily related to the sale of convertible preferred stock and common stock to BVF for total net proceeds of $24.8 million and the sale of common stock to Novartis for proceeds of $5.0 million. These cash inflows were partially offset by the payoff of our outstanding loan with Hercules of $17.5 million.

Rights Offering

On November 19, 2018, we initiated a rights offering to raise $20.0 million through the distribution of subscription rights to holders of our common stock and Series X preferred stock (the “Rights Offering”). In December 2018, we sold a total of 285,689 shares of common stock and 1,252.772 shares of Series Y preferred stock under the Rights Offering for aggregate gross proceeds of $20.0 million. All Series Y preferred shares were issued to BVF. Total offering costs of $0.3 million were offset against the proceeds from the sale of common stock and preferred stock.

2018 ATM Agreement

On December 18, 2018, we entered into an At The Market Issuance Sales Agreement (the “2018 ATM Agreement”) with H.C. Wainwright & Co., LLC (“HCW”), under which we may offer and sell from time to time at our sole discretion shares of our common stock through HCW as our sales agent, in an aggregate amount not to exceed $30.0 million. HCW may sell the shares by any method permitted by law deemed to be an “at the market” offering as defined in Rule 415 of the Securities Act, and will use its commercially reasonable efforts consistent with its normal trading and sales practices to sell the shares up to the amount specified. We will pay HCW a commission of 3% of the gross proceeds of any shares of common stock sold under the 2018 ATM Agreement. For the year ended December 31, 2018, we have not sold any shares of common stock under the 2018 ATM Agreement.

SVB Loan Agreement

On May 7, 2018 (the “Effective Date”), we executed the Loan Agreement with SVB. Under the Loan Agreement, upon our request, SVB may make advances (each, a “Term Loan Advance”) available to us up to $20.0 million (the “Term Loan”). We may borrow advances under the Term Loan until the earlier of March 31, 2019 or an event of default (the “Draw Period”). Unless an event of default occurs, the period to draw may be extended to March 31, 2020, if we receive $20.0 million in gross cash proceeds from milestone/licensing payments by March 31, 2019. In the event of a default related to our note agreement with Novartis Pharma AG (“Novartis”), SVB’s obligation to make any credit extensions to

us under the Loan Agreement will immediately terminate. As of December 31, 2018, we have borrowed advances of $7.5 million under the Loan Agreement. The interest rate is calculated at a rate equal to the greater of (i) 4.75%, and (ii) 0.25% plus the prime rate as reported from time to time in The Wall Street Journal.

Payments under the Loan Agreement are interest only until the first anniversary of the funding date of each Term Loan Advance. The interest-only period will be followed by equal monthly payments of principal and interest over 24 months. Each Term Loan Advance will mature at the earlier of (i) the 23 months following the applicable term loan amortization date for each such Term Loan Advance (ii) March 1, 2023, or (iii) 30 days prior to the earliest maturity of any portion of our loan with Novartis (the “Loan Maturity Date”). After repayment, no Term Loan Advance (or any portion thereof) may be reborrowed.

The entire principal balance, including a final payment equal to 8.5% of the principal, will be due and payable on the Loan Maturity Date. If we prepay the Term Loan Advance prior to the Loan Maturity Date, we will pay SVB a prepayment premium, based on a prepayment fee equal to 3.00% of the amount prepaid, if the prepayment occurs on or before the first anniversary of the Effective Date, 2.00% of the amount prepaid, if the prepayment occurs after the first anniversary of the Effective Date but prior to the second anniversary of the Effective Date, and 1.00% of the amount prepaid if the prepayment occurs after the second anniversary of the Effective Date. In the event of a default, a default interest rate of an additional 4% may be applied to the outstanding payments due to SVB, and SVB may declare all outstanding obligations immediately due and payable and take such other actions as set forth in the Loan Agreement.

* * *

We have incurred significant operating losses since our inception and have an accumulated deficit of $1.2 billion at December 31, 2018. As of December 31, 2018, we had $45.8 million in cash and cash equivalents, which will enable us to maintain our operations for a period of at least 12 months following the filing date of this report.

Our ability to raise additional capital in the equity and debt markets, should we choose to do so, is dependent on a number of factors, including the market demand for our common stock or debt, which itself is subject to a number of pharmaceutical development and business risks and uncertainties, as well as the uncertainty that we would be able to raise such additional capital at a price or on terms that are favorable to us.

Commitments and Contingencies

Although operations are influenced by general economic conditions, we do not believe inflation had a material impact on financial results for the periods presented. We believe that we are not dependent on materials or other resources that would be significantly impacted by inflation or changing economic conditions in the foreseeable future.

Collaborative Agreements, Royalties and Milestone Payments

We have committed to make potential future milestone payments to third parties as part of licensing and development programs. Payments under these agreements become due and payable only upon the achievement of certain developmental, regulatory and commercial milestones by our licensees. Because it is uncertain if and when these milestones will be achieved, such contingencies, aggregating up to $7.5 million (assuming one product per contract meets all milestones) have not been recorded on our consolidated balance sheet as of December 31, 2018. We are unable to determine precisely when and if our payment obligations under the agreements will become due as these obligations are based on milestone events, the achievement of which is subject to a significant number of risks and uncertainties.

Lease Agreements

We lease administrative facilities and office equipment under operating leases expiring on various dates through April 2023. These leases require us to pay taxes, insurance, maintenance and minimum lease payments.

We have entered into multiple non-cancellable sublease agreements for portions of our three leased facilities. Under the terms of our sublease agreements, we will receive $7.9 million in base lease payments over the term of the subleases, which end at the same time as the original leases.

Recent Accounting Pronouncements

In February 2016, the Financial Accounting Standards Board ("FASB") issued ASU 2016-02, Leases (Topic 842). ASU 2016-02 is aimed at making leasing activities more transparent and comparable, and requires substantially all leases be recognized by lessees on their balance sheet as a right-of-use asset and corresponding lease liability, including leases currently accounted for as operating leases. Early adoption is permitted and must be adopted using a modified retrospective approach. In July 2018, however, the FASB issued ASU 2018-11, Leases (Topic 842): Targeted Improvements, which provides entities with an additional (and optional) transition method which would enable entities to initially apply the new leases standard at the adoption date and recognize a cumulative-effect adjustment to the opening balance of retained earnings/accumulated deficit. This optional transition method is in addition to the modified retrospective transition approach included in ASU 2016-02. The new standard will be effective for us on January 1, 2019 and will be adopted using the optional transition method by recognizing a cumulative effect adjustment to the opening balance of retained earnings as of that date. The effect of adoption on our financial statements will depend on the leases in effect and our borrowing rates at that time. We will recognize a material right-of-use asset and corresponding lease liability on the balance sheet upon adoption for our existing leases but we do not expect the adoption to significantly impact our consolidated statement of operations and comprehensive (loss) income.

In June 2018, the FASB issued ASU 2018-07, Compensation- Stock Compensation (Topic 718) "Improvements to Nonemployee Share-Based Payment Accounting," which expands the scope of Topic 718 to include all share-based payment transactions for acquiring goods and services from nonemployees. An entity should apply the requirements of Topic 718 to nonemployee awards except for certain exemptions specified in the amendment. ASU 2018-07 is effective for our interim and annual reporting periods during the year ending December 31, 2019, and all annual and interim reporting periods thereafter. Early adoption is permitted, but no earlier than an entity's adoption date of Topic 606. We elected to early adopt this standard on June 30, 2018. The adoption did not have a material impact on our consolidated financial statements.

In August 2018, the FASB issued ASU 2018-13, Fair Value Measurement (Topic 820), which modifies, removes and adds certain disclosure requirements on fair value measurements based on the FASB Concepts Statement, Conceptual Framework for Financial Reporting—Chapter 8: Notes to Financial Statements. The ASU is effective for our interim and annual reporting periods during the year ending December 31, 2020, and all annual and interim reporting period thereafter. The amendments on changes in unrealized gains and losses, the range and weighted average of significant unobservable inputs used to develop Level 3 fair value measurements and the narrative description of measurement uncertainty should be applied prospectively for only the most recent interim or annual period presented in the initial fiscal year of adoption. All other amendments should be applied retrospectively to all periods presented upon their effective date. Early adoption is permitted upon issuance of ASU 2018-13. An entity is permitted to early adopt any removed or modified disclosures upon issuance of ASU 2018-13 and delay adoption of the additional disclosures until their effective date. We early adopted the guidance related to removal of disclosures upon issuance of this ASU and will delay adoption of additional disclosures as permitted under the ASU. We do not believe adoption of the guidance will have a significant impact on our consolidated financial statements.

In November 2018, the FASB issued ASU 2018-18, Collaborative Arrangements (Topic 808) "Clarifying the Interaction between Topic 808 and Topic 606," which requires transactions in collaborative arrangements to be accounted for under ASC 606 if the counterparty is a customer for a good or service that is a distinct unit of account. The new standard also precludes an entity from presenting consideration from transactions with a collaborator that is not a customer together with revenue recognized from contracts with customers. The ASU is effective for our interim and annual reporting periods during the year ending December 31, 2020, and all annual and interim reporting period thereafter. Early adoption is permitted, but no earlier than an entity's adoption date of Topic 606. This ASU requires retrospective adoption to the date we adopted ASC 606, January 1, 2018, by recognizing a cumulative-effect adjustment to the opening balance of retained earnings of the earliest annual period presented. We may elect to apply the ASU retrospectively either to all contracts or only to contracts that are not completed at the date we initially applied ASC 606. We are in the process of accessing the impact of ASU 2018-18 on our consolidated financial statements.

Off Balance Sheet Arrangements

We have not engaged in any off-balance sheet arrangements, including the use of structured finance, special purpose entities or variable interest entities.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

We are a smaller reporting company as defined by Rule 12b-2 of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and are not required to provide the information required under this item.

Item 8. Financial Statements and Supplementary Data

The following consolidated financial statements of the registrant, related notes and report of independent registered public accounting firm are set forth beginning on page F-1 of this report.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

Not applicable.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including our Chief Executive Officer and our Senior Vice President, Finance and Chief Financial Officer, we conducted an evaluation of our disclosure controls and procedures, as such term is defined under Rule 13a-15 promulgated under the Securities Exchange Act of 1934, as amended, as of the end of the period covered by this report. Our disclosure controls and procedures are intended to ensure that the information we are required to disclose in the reports that we file or submit under the Securities Exchange Act of 1934 is (i) recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms and (ii) accumulated and communicated to our management, including the Chief Executive Officer and Senior Vice President, Finance and Chief Financial Officer, as the principal executive and financial officers, respectively, to allow timely decisions regarding required disclosures. Based on this evaluation, our Chief Executive Officer and our Senior Vice President, Finance and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of the end of the period covered by this report.

Management's Report on Internal Control over Financial Reporting

Management, including our Chief Executive Officer and our Senior Vice President, Finance and Chief Financial Officer, is responsible for establishing and maintaining adequate internal control over financial reporting (as such term is defined in Exchange Act Rules 13a-15(f). The Company's internal control system was designed to provide reasonable assurance to the Company's management and board of directors regarding the preparation and fair presentation of published financial statements in accordance with accounting principles generally accepted in the United States.

Management assessed the effectiveness of our internal control over financial reporting as of December 31, 2018. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") in Internal Control—Integrated Framework (2013 Framework). Based on our assessment we believe that, as of December 31, 2018, our internal control over financial reporting is effective based on those criteria.

This annual report includes an attestation report of the Company's registered public accounting firm, Deloitte & Touche LLP, regarding the effectiveness of our internal control over financial reporting as of December 31, 2018.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting during the quarter ended December 31, 2018 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

On March 3, 2019, our Board, in accordance with our Bylaws and the Delaware General Corporation Law, approved an updated form of Indemnity Agreement to be entered into between the Company and its directors and executive officers. The Indemnity Agreement provides for indemnification of, and advancement of expenses to, the Company's directors and executive officers in specified circumstances.

On March 4, 2019, we and SVB amended the Loan Agreement to extend the Draw Period to March 31, 2020. In connection with the amendment, we issued a second warrant to SVB which is exercisable in whole or in part for up to an aggregate of 4,845 shares of common stock with an exercise price of $14.71 per share. The warrant may be exercised on a cashless basis and is exercisable within 10 years from the date of issuance or upon the consummation of certain acquisitions of XOMA. The warrant was offered and sold in reliance upon the exemption from registration

provided by Section 4(a)(2) under the Securities Act of 1933, as amended (the "Securities Act").

The foregoing description of the Indemnity Agreement, the amendment to the Loan Agreement and the warrant is not intended to be complete and is qualified in its entirety by reference to the full text of the Indemnity Agreement, amendment to the Loan Agreement and the warrant, which will be filed as exhibits to our Quarterly Report on Form 10-Q for the three month period ending March 31, 2019.

PART III

Item 10. Directors, Executive Officers, Corporate Governance

Information required by this Item will be included in the Company's proxy statement for the 2019 Annual Meeting of Stockholders ("2019 Proxy Statement"), under the sections labeled "Proposal 1—Election of Directors" and "Compliance with Section 16(a) of the Securities Exchange Act of 1934," and is incorporated by reference. The 2019 Proxy Statement will be filed with the SEC within 120 days after the end of the fiscal year to which this report relates.

Code of Ethics

The Company's Code of Ethics applies to all employees, officers and directors including the Chief Executive Officer (principal executive officer) and the Senior Vice President, Finance and Chief Financial Officer (principal financial and principal accounting officer) and is posted on the Company's website at www.xoma.com. We intend to satisfy the applicable disclosure requirements regarding amendments to, or waivers from, provisions of our Code of Ethics by posting such information on our website.

Item 11. Executive Compensation

Information required by this Item will be included in the sections labeled "Compensation of Executive Officers," "Summary Compensation Table," "Outstanding Equity Awards as of December 31, 2018," "Pension Benefits," "Non-Qualified Deferred Compensation" and "Compensation of Directors" appearing in our 2019 Proxy Statement and is incorporated by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

Information required by this Item will be included in the sections labeled "Common Stock of Certain Beneficial Owners and Management" and "Equity Compensation Plan Information" appearing in our 2019 Proxy Statement and is incorporated by reference.

Item 13. Certain Relationships and Related Transactions, and Director Independence

Information required by this Item will be included in the section labeled "Transactions with Related Persons" appearing in our 2019 Proxy Statement and is incorporated by reference.

Item 14. Principal Accountant Fees and Services

Information required by this Item will be included in the section labeled “Proposal 3 – Ratification of Appointment of Independent Registered Public Accounting Firm” appearing in our 2019 Proxy Statement and is incorporated by reference.

PART IV

Item 15. Exhibits and Financial Statement Schedules
(a) The following documents are included as part of this Annual Report on Form 10-K:

(1) Financial Statements:

All financial statements of the registrant referred to in Item 8 of this Report on Form 10-K.

(2) Financial Statement Schedules:

All financial statements schedules have been omitted because the required information is included in the consolidated financial statements or the notes thereto or is not applicable or required.

(3) Exhibits:

		Incorporation By Reference		
Exhibit Number	Exhibit Description	SEC File No.	Exhibit	Filing Date
3.1	Certificate of Incorporation of XOMA Corporation	000-14710	3.1	01/03/2012
3.2	Certificate of Amendment of Certificate of Incorporation of XOMA Corporation	000-14710	3.1	05/31/2012
3.3	Certificate of Amendment to the Amended Certificate of Incorporation of XOMA Corporation	000-14710	3.1	05/28/2014
3.4	Certificate of Amendment to the Amended Certificate of Incorporation	000-14710	3.1	10/18/2016

	of XOMA Corporation				
3.5	Certificate of Designation of Preferences, Rights and Limitations of Series X Convertible Preferred Stock	8-K	000-14710	3.1	02/16/2017
3.6	Certificate of Designation of Preferences, Rights and Limitations of Series Y Convertible Preferred Stock	8-K	000-14710	3.1	12/13/2018
3.7	By-laws of XOMA Corporation	8-K	000-14710	3.2	01/03/2012
4.1	Reference is made to Exhibits 3.1, 3.2, 3.3, 3.4, 3.5, 3.6 and 3.7				
4.2	Specimen of Common Stock Certificate	8-K	000-14710	4.1	01/03/2012
4.3	Form of Series X Preferred Stock Certificate	8-K	000-14710	4.1	02/16/2017
4.5	Form of Warrants (February 2015	10-Q	000-14710	4.10	05/07/2015

	Warrants)				
4.6	Form of Warrants (February 2016 Warrants)	10-Q	001-14710	4.9	05/04/2016
4.7	Form of Warrants (May 2018 Warrants)	10-Q	001-14710	4.6	08/07/2018
10.1*	1981 Share Option Plan as amended and restated	S-8	333-171429	10.1	12/27/2010
10.2*	Form of Share Option Agreement for 1981 Share Option Plan	10-K	001-14710	10.1A	03/11/2008
10.3*	Restricted Share Plan as amended and restated	S-8	333-171429	10.1	12/27/2010
10.4*	Form of Share Option Agreement for Restricted Share Plan	10-K	001-14710	10.2A	03/11/2008
10.6*	1992 Directors Share Option Plan as amended and restated	S-8	333-171429	10.1	12/27/2010
10.7*	Form of Share Option Agreement for 1992 Directors Share Option Plan (initial grants)	10-K	001-14710	10.3A	03/11/2008

10.8*	Form of Share Option Agreement for 1992 Directors Share Option Plan (subsequent grants)	10-K	0-14710	10.3B	03/11/2008

Exhibit Number	Exhibit Description	Incorporation By Reference SEC File No.	Form	Exhibit	Filing Date
10.9*	2002 Director Share Option Plan	333-151416	S-8	10.10	08/28/2003
10.10*	Amended and Restated 2010 Long Term Incentive and Stock Award Plan	001-14710	8-K	10.1	05/24/2017
10.11*	XOMA Corporation Amended and Restated 2010 Long Term Incentive and Stock Award Plan	001-14710	S-8	99.1	09/12/2014
10.12*	Form of Stock Option Agreement for Amended and Restated 2010 Long Term Incentive and Stock Award Plan	001-14710	10-K	10.6A	03/14/2012
10.13*	Form of Restricted Stock Unit Agreement for Amended and Restated 2010 Long Term Incentive and Stock Award Plan	001-14710	10-K	10.6B	03/14/2012
10.14*	2016 Incentive Compensation Plan	001-14710	10-Q	10.1	05/04/2016
10.15*	Form of Amended and Restated Indemnification Agreement for Officers	001-14710	10-K	10.6	03/08/2007
10.16*	Form of Amended and Restated	001-14710	10-K	10.7	03/08/2007

	Indemnification Agreement for Employee Directors				
10.17*	Form of Amended and Restated Indemnification Agreement for Non-employee Directors	10-K	001-14710	10.8	03/08/2007
10.18*	2015 Employee Stock Purchase Plan	S-8	333-204367	99.1	05/21/2015
10.19*	Amended 2015 Employee Share Purchase Plan	8-K	001-14710	10.2	05/24/2017
10.20*	Form of Subscription Agreement and Authorization of Deduction under the 2015 Employee Stock Purchase Plan	S-8	333-204367	99.2	05/21/2015
10.21	Lease of premises at 804 Heinz Street, Berkeley, California dated February 13, 2013	10-K	001-14710	10.29	03/12/2014
10.22	Lease of premises at 2910 Seventh Street, Berkeley, California dated February 13, 2013	10-K	001-14710	10.30	03/12/2014
10.23	First amendment to lease of premises at 2910 Seventh Street, Berkeley, California dated February 22, 2013	10-K	001-14710	10.31	03/12/2014
10.24†	License Agreement by and between XOMA Ireland	10-Q/A	001-14710	10.43	12/04/2002

	Limited and MorphoSys AG, dated as of February 1, 2002				
10.25†	License Agreement, dated as of December 29, 2003, by and between Diversa Corporation (n/k/a BP Biofuels Advanced Technology Inc.) and XOMA Ireland Limited	8-K/A	000-14710	2	03/19/2004
10.26	First Amendment, dated October 28, 2014, to the License Agreement between XOMA (US) LLC (assigned to it by XOMA Ireland Limited) and BP Biofuels Advanced Technology Inc. (previously Diversa Corporation, previously Verenium Corporation).	10-Q	000-14710	10.3	11/06/2014
10.27†	Secured Note Agreement, dated as of May 26, 2005, by and between Chiron Corporation and XOMA (US) LLC	10-Q	000-14710	10.3	08/08/2005
10.28†	Amended and Restated Research, Development and Commercialization Agreement, executed November 7, 2008, by and between Novartis Vaccines	10-K	000-14710	10.24C	03/11/2009

and Diagnostics, Inc. (formerly Chiron Corporation) and XOMA (US) LLC

Exhibit Number	Exhibit Description	Incorporation By Reference			
		Form	SEC File No.	Exhibit	Filing Date
10.29†	Amendment No. 1 to Amended and Restated Research, Development and Commercialization Agreement, effective as of April 30, 2010, by and between Novartis Vaccines and Diagnostics, Inc. (formerly Chiron Corporation) and XOMA (US) LLC	10-K	000-14710	10.25B	03/14/2012
10.30†	Amendment to Amended and Restated Research, Development and Commercialization Agreement, dated September 30, 2015, by and between XOMA (US) LLC and Novartis Vaccines and Diagnostics, Inc. (formerly Chiron Corporation)	10-Q	000-14710	10.4	11/06/2015
10.31	Amendment to Secured Note Agreement, executed September 22, 2017, by and between Novartis Vaccines and Diagnostics, Inc. (formerly Chiron Corporation) and XOMA (US) LLC	10-K	000-14710	10.31	03/07/2018

10.32†	Collaboration Agreement, dated as of November 1, 2006, between Takeda Pharmaceutical Company Limited and XOMA (US) LLC	10-K	000-14710	10.46	03/08/2007
10.33	First Amendment to Collaboration Agreement, effective as of February 28, 2007, between Takeda Pharmaceutical Company Limited and XOMA (US) LLC	10-Q/A	000-14710	10.48	03/05/2010
10.34	Second Amendment to Collaboration Agreement, effective as of February 9, 2009, among Takeda Pharmaceutical Company Limited and XOMA (US) LLC	10-K	000-14710	10.31B	03/11/2009
10.35†	License Agreement, effective as of August 27, 2007, by and between Pfizer Inc. and XOMA Ireland Limited	8-K	000-14710	2	09/13/2007
10.36†	Discovery Collaboration Agreement dated September 9, 2009, by and between XOMA Development Corporation and	10-Q/A	000-14710	10.35	03/05/2010

	Arana Therapeutics Limited				
10.37†	Loan Agreement dated as of December 30, 2010, by and between XOMA Ireland Limited and Les Laboratoires Servier	10-K/A	000-14710	10.42A	05/26/2011
10.38†	Amendment No. 2, effective January 9, 2015, to the Loan Agreement, effective December 30, 2010, by and among XOMA (US) LLC, Les Laboratoires Servier and Institut de Recherches Servier	10-K	000-14710	10.71	03/11/2015
10.39	Amendment No. 1 (Consent, Transfer, Assumption and Amendment), effective January 9, 2015, to the Loan Agreement, effective December 30, 2010, by and among XOMA (US) LLC, Les Laboratoires Servier and Institut de Recherches Servier	10-K	000-14710	10.74	03/11/2015
10.40	Loan and Security Agreement, dated February 27, 2015, by and among XOMA Corporation, XOMA(US) LLC and XOMA Commercial as borrowers and	10-Q	000-14710	10.3	05/07/2015

	Hercules Technology Growth Capital, Inc., as agent and lender				
10.41	Amendment No. 1, dated December 20, 2016, to Loan and Security Agreement, dated February 27, 2015, by and among XOMA Corporation, XOMA(US) LLC and XOMA Commercial as borrowers and Hercules Technology Growth Capital, Inc., as agent and lender	10-K	000-14710	10.41	03/07/2018
10.42	Letter Agreement, dated June 19, 2015, by and between XOMA (US) LLC and Novartis Vaccines and Diagnostics, Inc.	10-Q	000-14710	10.1	08/10/2015

Exhibit Number	Exhibit Description	Incorporation By Reference			
		Form	SEC File No.	Exhibit	Filing Date
10.43†	License Agreement, dated September 30, 2015, by and between XOMA (US) LLC and Novartis Institutes for Biomedical Research, Inc.	10-Q	000-14710	10.2	11/06/2015
10.44	Amended Secured Note Agreement, dated September 30, 2015, by and between XOMA (US) LLC and Novartis Institutes for Biomedical Research, Inc.	10-Q	000-14710	10.3	11/06/2015
10.45†	Asset Purchase Agreement dated November 5, 2015 by and between the Company and Agenus West, LLC	10-K	001-14710	10.65	03/09/2016
10.46	Protective Rights Agreement dated December 21, 2016 by and between XOMA (US) LLC and HealthCare Royalty Partners II, L.P. relating to the Royalty	10-K	001-14710	10.60	03/16/2017

	Interest Acquisition Agreement dated December 20, 2016, by and between XOMA Corporation and HealthCare Royalty Partners II, L.P. and the Amended and Restated License Agreement, dated effective as of October 27, 2006, between XOMA (US) LLC and DYAX, Corp.				
10.47	Protective Rights Agreements dated December 21, 2016 by and between XOMA (US) LLC and HealthCare Royalty Partners II, L.P. relating to the Royalty Interest Acquisition Agreement dated December 20, 2016, by and between XOMA Corporation and HealthCare Royalty Partners II, L.P. and the License Agreement, dated effective as of August 18, 2005, between XOMA (US) LLC and Wyeth Pharmaceuticals	10-K	001-14710	10.61	03/16/2017
10.48		10-K	001-14710	10.62	03/16/2017

	Royalty Interest Acquisition Agreement dated December 20, 2016, by and between XOMA Corporation and HealthCare Royalty Partners II, L.P., relating to the Amended and Restated License Agreement, dated effective as of October 27, 2006, between XOMA (US) LLC and DYAX, Corp.				
10.49	Royalty Interest Acquisition Agreement dated December 20, 2016, by and between XOMA Corporation and HealthCare Royalty Partners II, L.P., relating to the License Agreement, dated effective as of August 18, 2005, between XOMA (US) LLC and Wyeth Pharmaceuticals	10-K	001-14710	10.63	03/16/2017
10.50	Amendment of Section 6.10(a) and (b), dated March 8, 2017, to Royalty Interest Acquisition Agreements dated December 20, 2016, by and between XOMA	10-K	001-14710	10.64	03/16/2017

	Corporation and HealthCare Royalty Partners II, L.P.				
10.51	Amendment No. 3, effective January 17, 2017, to the Loan Agreement, effective December 30, 2010, by and among XOMA (US) LLC, Les Laboratoires Servier and Institut de Recherches Servier	10-K	000-14710	10.53	03/07/2018
10.52	Common Stock Purchase Agreement, dated August 24, 2017, by and between XOMA Corporation and Novartis Pharma AG	10-Q	001-14710	10.1	11/06/2017
10.53†	IL-1b Target License Agreement, dated August 24, 2017, by and between XOMA Corporation and Novartis Pharma AG	10-Q	001-14710	10.2	11/06/2017
10.54†	License Agreement, dated August 24, 2017, by and between XOMA Corporation and Novartis Pharma AG	10-Q	001-14710	10.3	11/06/2017

45

Exhibit Number	Exhibit Description	Incorporation By Reference			
		Form	SEC File No.	Exhibit	Filing Date
10.55	Asset Purchase Agreement, dated November 4, 2015, between XOMA Corporation and Ology Bioservices, Inc. (formerly Nanotherapeutics Inc.)	10-Q	001-14710	10.4	11/06/2017
10.56†	License Agreement, dated March 23, 2016, between XOMA Corporation and Ology Bioservices, Inc. (formerly Nanotherapeutics Inc.)	10-Q	001-14710	10.5	11/06/2017
10.57†	Amendment and Restatement, dated February 2, 2017, to the Asset Purchase Agreement, dated November 4, 2015, and License Agreement, dated March 23, 2016, between XOMA Corporation and Ology Bioservices, Inc. (formerly Nanotherapeutics Inc.)	10-Q	001-14710	10.6	11/06/2017
10.58*	Officer Employment	10-Q	001-14710	10.7	11/06/2017

	Agreement, dated August 7, 2017, between XOMA Corporation and James R. Neal				
10.59*	Officer Employment Agreement, dated August 7, 2017, between XOMA Corporation and Thomas Burns	10-Q	001-14710	10.8	11/06/2017
10.60*	Amended and Restated Change of Control Severance Agreement, dated August 7, 2017, to the Change of Control Severance Agreement, dated January 3, 2011, between XOMA Corporation and James R. Neal	10-Q	001-14710	10.9	11/06/2017
10.61*	Amended and Restated Change of Control Severance Agreement, dated August 7, 2017, to the Change of Control Severance Agreement, dated October 28, 2015, between XOMA Corporation and Thomas Burns	10-Q	001-14710	10.10	11/06/2017
10.62	Officer Employment Agreement, dated April 27, 2018, between	10-Q	001-14710	10.6	08/07/2018

	XOMA Corporation and Deepshikha Datta				
10.63	Change of Control Severance Agreement, dated April 27, 2018, between XOMA Corporation and Deepshikha Datta	10-Q	001-14710	10.7	08/07/2018
10.64	Amendment No. 1, dated July 19, 2018, to the Officer Employment Agreement, dated April 27, 2018, between XOMA Corporation and Deepshikha Datta	10-Q	001-14710	10.8	08/07/2018
10.65†	Royalty Purchase Agreement dated September 20, 2018, between XOMA Corporation and Agenus Inc.	10-Q	001-14710	10.9	11/07/2018
10.66	Loan and Security Agreement dated May 7, 2018, between XOMA Corporation, XOMA (US) LLC and XOMA Technology, Ltd. And Silicon Valley Bank	10-Q	001-14710	10.5	08/07/2018
10.67#	License Agreement, dated December 6, 2017, between XOMA (US) LLC and	10-K	000-14710	10.66	03/07/2018

	Rezolute, Inc. (formerly AntriaBio)				
10.68#	Common Stock Purchase Agreement, dated December 6, 2017, between XOMA (US) LLC and Rezolute, Inc. (formerly AntriaBio)	10-K	000-14710	10.65	03/07/2018
10.69#	Amendment No. 1, dated March 30, 2018, to the License Agreement, dated December 6, 2017, between XOMA (US) LLC and Rezolute, Inc. (formerly AntriaBio, Inc.)	10-Q	001-14710	10.1	05/09/2018
10.70#	Amendment No. 1, dated March 30, 2018, to the Common Stock Purchase Agreement, dated December 6, 2017, between XOMA Corporation and Rezolute, Inc. (formerly AntriaBio, Inc.)	10-Q	001-14710	10.2	05/09/2018

Exhibit Number	Exhibit Description	Incorporation By Reference			
		Form	SEC File No.	Exhibit	Filing Date
10.71+#	Amendment No. 2, dated January 7, 2019, to the License Agreement, dated December 6, 2017, between XOMA (US) LLC and Rezolute, Inc. (formerly AntriaBio)				
10.72+	Amendment No. 2, dated January 7, 2019, to the Common Stock Purchase Agreement, dated December 6, 2017, between XOMA (US) LLC and Rezolute, Inc. (formerly AntriaBio)				
10.73	Common Stock Sales Agreement, dated December 18, 2018, by and between	8-K	001-14710	10.1	12/18/2018

	XOMA Corporation and H.C. Wainwright & Co., LLC				
16.1	Letter regarding change in certifying accountants, Ernst & Young LLP, dated March 23, 2018.	8-K	001-14710	16.1	3/23/2018
21.1+	Subsidiaries of the Company				
23.1+	Consent of Deloitte & Touche LLP, Independent Registered Public Accounting Firm				
23.2+	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm				
24.1+	Power of Attorney (included on the signature pages hereto)				
31.1+	Certification of Chief Executive Officer, as required by Rule				

	13a-14(a) or Rule 15d-14(a)
31.2+	Certification of Chief Financial Officer, as required by Rule 13a-14(a) or Rule 15d-14(a)
32.1+	Certification of Chief Executive Officer and Chief Financial Officer, as required by Rule 13a-14(b) or Rule 15d-14(b) and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. §1350)(1)
101.INS+	XBRL Instance Document
101.SCH+	XBRL Taxonomy Extension Schema Document
101.CAL+	XBRL Taxonomy Extension Calculation Linkbase Document

101.DEF+	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB+	XBRL Taxonomy Extension Labels Linkbase Document
101.PRE+	XBRL Taxonomy Extension Presentation Linkbase Document

† Confidential treatment has been granted with respect to certain portions of this exhibit. This exhibit omits the information subject to this confidentiality request. Omitted portions have been filed separately with the SEC.
* Indicates a management contract or compensation plan or arrangement.
+ Filed herewith
# Portions of this exhibit (indicated by asterisks) have been omitted pursuant to a request for confidential treatment and this exhibit has been submitted separately to the SEC. Omitted portions have been filed separately with the SEC.
(1) This certification accompanies the Form 10-K to which it relates, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of the Registrant under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Form 10-K), irrespective of any general incorporation language contained in such filing.

The exhibits listed in the accompanying index to exhibits are filed or incorporated by reference as part of this Annual Report on Form 10-K.

Item 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, on this 7th day of March 2019.

XOMA Corporation

By: /s/ JAMES R. NEAL
James R. Neal

Chief Executive Officer and Director

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints James Neal and Thomas Burns, and each of them, as his or her true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution for him or her and in his or her name, place, and stead, in any and all capacities, to sign any and all amendments to this Annual Report on Form 10-K, and to file the same, with exhibits thereto and other documents in connection therewith, with the SEC, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done therewith, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, and any of them or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ James R. Neal (James R. Neal)	Chief Executive Officer (Principal Executive Officer) and Director	March 7, 2019
/s/ Thomas Burns (Thomas Burns)	Senior Vice President, Finance and Chief Financial Officer (Principal Financial and Principal Accounting Officer)	March 7, 2019
/s/ W. Denman Van Ness (W. Denman Van Ness)	Chairman of the Board of Directors	March 7, 2019
/s/ Joseph M. Limber	Director	March 7, 2019

(Joseph M. Limber)

/s/ Jack L. Wyszomierski (Jack L. Wyszomierski)	Director	March 7, 2019
/s/ Matthew Perry (Matthew Perry)	Director	March 7, 2019
(Barbara Kosacz)	Director	March 7, 2019

Index to Consolidated Financial Statements

REPORT OF DELOITTE & TOUCHE LLP - INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of XOMA Corporation

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheet of XOMA Corporation and its subsidiaries (the "Company") as of December 31, 2018 and the related consolidated statements of operations and comprehensive (loss) income, shareholders' equity, and cash flows, for the year ended December 31, 2018, 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 as of December 31, 2018, and the results of its operations and its cash flows for the year ended December 31, 2018, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated March 7, 2019, expressed an unqualified opinion on the Company's internal control over financial reporting.

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 audit. We are a public accounting firm registered with the 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 audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audit 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 audit 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 audit provides a reasonable basis for our opinion.

/s/ Deloitte & Touche LLP

San Jose, California

March 7, 2019

We have served as the Company’s auditor since 2018

REPORT OF DELOITTE & TOUCHE LLP - INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of XOMA Corporation

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of XOMA Corporation and its subsidiaries (the "Company") as of December 31, 2018, based on criteria established in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control — Integrated Framework (2013) issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2018, of the Company and our report dated March 7, 2019, expressed an unqualified opinion on those financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the 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 audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Deloitte & Touche LLP

San Jose, California

March 7, 2019

F-3

REPORT OF ERNST & YOUNG LLP - INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of XOMA Corporation

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheet of XOMA Corporation as of December 31, 2017, the related consolidated statements of operations and comprehensive income, stockholders' equity, and cash flows for the year ended December 31, 2017 and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2017, and the results of its operations and its cash flows for the year ended December 31, 2017, in conformity with U.S. generally accepted accounting principles.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audit. 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 audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audit we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audit 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 audit provides a reasonable basis for our opinion.

/s/ Ernst & Young LLP

We have served as the Company's auditor from 1998 to 2018

Redwood City, California

March 7, 2018

F-4

XOMA Corporation

CONSOLIDATED BALANCE SHEETS

(in thousands, except share data)

	December 31,	
	2018	2017
ASSETS		
Current assets:		
Cash and cash equivalents	$45,780	$43,471
Trade and other receivables	1,468	397
Prepaid expenses and other current assets	378	327
Total current assets	47,626	44,195
Property and equipment, net	59	83
Long-term royalty receivables	15,000	—
Long-term equity securities	392	—
Other assets	708	657
Total assets	$63,785	$44,935
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$1,244	$1,679
Accrued and other liabilities	2,382	2,693
Income taxes payable	—	1,637
Unearned revenue recognized under units-of-revenue method	490	615
Contract liabilities	798	798
Current portion of long-term debt	789	—
Total current liabilities	5,703	7,422
Unearned revenue recognized under units-of-revenue method – long-term	17,017	17,123
Long-term debt	21,690	14,572
Other liabilities – long-term	590	32
Total liabilities	45,000	39,149
Commitments and Contingencies (Note 14)		
Stockholders' equity:		
Convertible preferred stock, $0.05 par value, 1,000,000 shares authorized, 6,256 and 5,003 shares issued and outstanding at December 31, 2018 and 2017, respectively	—	—
Common stock, $0.0075 par value, 277,333,332 shares authorized, 8,690,723 and 8,249,158 shares issued and outstanding at December 31, 2018 and 2017, respectively	65	62

Additional paid-in capital	1,211,122	1,184,783
Accumulated deficit	(1,192,402)	(1,179,059)
Total stockholders' equity	18,785	5,786
Total liabilities and stockholders' equity	$63,785	$44,935

The accompanying notes are an integral part of these consolidated financial statements.

XOMA Corporation

CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE (LOSS) INCOME

(in thousands, except per share amounts)

	For the Year Ended December 31,	
	2018	2017
Revenues:		
Revenue from contracts with customers	$5,068	$52,428
Revenue recognized under units-of-revenue method	231	262
Total revenues	5,299	52,690
Operating expenses:		
Research and development	1,682	7,875
General and administrative	18,563	24,337
Restructuring charges	1,911	3,447
Total operating expenses	22,156	35,659
(Loss) income from operations	(16,857)	17,031
Other income (expense):		
Interest expense	(922)	(1,238)
Loss on extinguishment of debt	—	(650)
Other income, net	4,338	1,115
(Loss) income before income tax	(13,441)	16,258
Income tax benefit (expense)	98	(1,662)
Net (loss) income and comprehensive (loss) income	$(13,343)	$14,596
Net (loss) income and comprehensive (loss) income available to common stockholders (see Note 12), basic	$(13,343)	$5,714
Net (loss) income and comprehensive (loss) income available to common stockholders (see Note 12), diluted	$(13,343)	$5,810
Basic net (loss) income per share available to common stockholders	$(1.59)	$0.75
Diluted net (loss) income per share available to common stockholders	$(1.59)	$0.73
Weighted average shares used in computing basic net (loss) income per share available to common stockholders	8,373	7,619
Weighted average shares used in computing diluted net (loss)	8,373	7,980

income per share available to common stockholders

The accompanying notes are an integral part of these consolidated financial statements.

XOMA Corporation

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

(in thousands)

	Convertible Preferred Stock Shares	Amount	Common Stock Shares	Amount	Additional Paid-In Capital	Accumulated Deficit	Total Stockholders' Equity (Deficit)
Balance, December 31, 2016	—	$ —	6,114	$ 46	$1,146,357	$(1,193,613)	$ (47,210)
Cumulative effect adjustment to accumulated deficit due to adoption of ASU 2016-09	—	—	—	—	42	(42)	—
Exercise of stock options	—	—	110	1	657	—	658
Issuance of common stock related to 401(k) contribution and ESPP	—	—	102	1	531	—	532
Vesting of restricted stock units	—	—	74	1	(1)	—	—
Stock-based compensation expense	—	—	—	—	7,301	—	7,301
Issuance of convertible preferred stock	5	—	—	—	20,019	—	20,019
Issuance of common stock	—	—	1,849	13	9,877	—	9,890
Net income and comprehensive income	—	—	—	—	—	14,596	14,596
Balance, December 31, 2017	5	$ —	8,249	$ 62	$1,184,783	$(1,179,059)	$ 5,786
Exercise of stock options	—	—	68	1	366	—	367
Issuance of common stock related to 401(k) contribution and ESPP	—	—	4	—	64	—	64
Vesting of restricted stock units	—	—	16	—	—	—	—
Stock-based compensation expense	—	—	—	—	3,902	—	3,902
Issuance of warrants	—	—	—	—	139	—	139
Issuance of convertible preferred stock	1	—	—	—	16,004	—	16,004
Issuance of common stock	—	—	354	2	5,864	—	5,866
Net loss and comprehensive loss	—	—	—	—	—	(13,343)	(13,343)
Balance, December 31, 2018	6	$ —	8,691	$ 65	$1,211,122	$(1,192,402)	$ 18,785

The accompanying notes are an integral part of these consolidated financial statements.

XOMA Corporation

CONSOLIDATED STATEMENTS OF CASH FLOWS

(in thousands)

	Year Ended December 31,	
	2018	2017
Cash flows from operating activities:		
Net (loss) income	$(13,343)	$14,596
Adjustments to reconcile net (loss) income to net cash (used in) provided by operating activities:		
Fair value of Rezolute common stock shares received as consideration for license agreement	(955)	—
License fee recognized related to repayment of principal and accrued interest under the Servicer Loan	—	(14,346)
Stock-based compensation expense	3,902	7,301
Common stock contribution to 401(k)	20	506
Depreciation and amortization	30	304
Amortization of debt issuance costs, debt discount and final payment on debt	141	444
Loss on sublease	—	800
Loss on extinguishment of debt	—	650
Realized (gain) loss on foreign currency exchange	(20)	1,635
Net gain on sale, disposal and impairment of equipment	—	(1,068)
Change in fair value of long-term equity securities	563	—
Other	—	61
Changes in assets and liabilities:		
Trade and other receivables	(1,029)	169
Prepaid expenses and other assets	(102)	106
Accounts payable and accrued liabilities	(1,161)	(9,746)
Unearned revenue recognized under units-of-revenue method	(231)	(363)
Income tax payable	(1,637)	1,637
Other liabilities	1,178	—
Net cash (used in) provided by operating activities	(12,644)	2,686
Cash flows from investing activities:		
Proceeds from sale of equipment	—	1,614
Purchase of property and equipment	(6)	(8)
Purchase of royalty rights in connection with Agenus purchase agreement	(15,000)	—
Net cash (used in) provided by investing activities	(15,006)	1,606
Cash flows from financing activities:		
Proceeds from issuance of convertible preferred stock, net of issuance costs	16,269	20,019
Proceeds from issuance of common stock, net of issuance costs	6,063	10,160

Proceeds from exercise of options	583	1,550
Proceeds from issuance of long-term debt	7,500	—
Debt issuance costs and loan fees	(217)	—
Principal payments – debt	—	(16,380)
Payment of final fee related to loan extinguishment	—	(1,150)
Principal payments – capital lease	(13)	(51)
Taxes paid related to net share settlement of equity awards	(246)	(890)
Net cash provided by financing activities	29,939	13,258
Effect of exchange rate changes on cash	20	179
Net increase in cash and cash equivalents	2,309	17,729
Cash and cash equivalents at the beginning of the period	43,471	25,742
Cash and cash equivalents at the end of the period	$45,780	$43,471

The accompanying notes are an integral part of these consolidated financial statements.

Supplemental Cash Flow Information:		
Cash paid for interest	$81	$545
Cash paid for taxes	$1,637	$—
Non-cash investing and financing activities:		
Exchange of principal and accrued interest under the Servier loan	$—	$14,346
Equipment acquired through capital lease	$—	$45
Interest added to principal balance on long-term debt	$621	$487
Accrued cost related to issuance of preferred and common stock	$417	$—
Prepaid financing cost related to issuance of common stock	$100	$—
Issuance of common stock warrant under SVB loan	$139	$—

The accompanying notes are an integral part of these consolidated financial statements.

XOMA Corporation

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Description of Business

XOMA Corporation (referred to as “XOMA” or the “Company”), a Delaware corporation, has a long history of discovering and developing innovative therapeutic candidates derived from its unique platform of antibody technologies. Over the Company’s extensive history, it built a pipeline of fully-funded programs discovered by its licensees and partners from direct use of the Company’s proprietary antibody discovery platform and from product candidates it discovered and advanced prior to licensing them to licensees who assumed the responsibilities of subsequent development, regulatory approval and commercialization. Fully-funded programs are those for which the Company’s partners pay the development and commercialization costs. As licensees advance these programs, the Company is eligible for potential milestone and royalty payments. As part of the Company’s royalty aggregator business model, the Company will continue to expand its pipeline of fully-funded programs by acquiring potential milestone and royalty revenue streams on additional product candidates.

2. Basis of Presentation and Significant Accounting Policies

Principles of Consolidation

The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries. All intercompany accounts and transactions among consolidated entities were eliminated upon consolidation.

Liquidity and Financial Condition

With the exception of the year ended December 31, 2017, the Company has incurred significant operating losses and negative cash flows from operations since its inception. As of December 31, 2018, the Company had cash and cash equivalents of $45.8 million. Based on the Company’s current cash and cash equivalents balance and its ability to control discretionary spending, such as royalty acquisitions, the Company has evaluated and concluded there are no conditions or events, considered in the aggregate, that raise substantial doubt about its ability to continue as a going concern for a period of one year following the date that these financial statements are issued.

Reclassification

Certain immaterial prior year amounts have been reclassified to conform to the current year presentation.

Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles in the United States (“U.S. GAAP”) requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue and expenses, and related disclosures. On an ongoing basis, management evaluates its estimates including, but not limited to, those related to revenue recognition, long-term equity securities, debt

amendments, long-lived assets, restructuring liabilities, legal contingencies, income taxes and stock-based compensation. The Company bases its estimates on historical experience and on various other market-specific and other relevant assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources.

Actual results may differ significantly from these estimates, such as the Company's billing under government contracts and amortization of the payments received from HealthCare Royalty Partners II, L.P. ("HCRP"). Under the Company's contracts with the National Institute of Allergy and Infectious Diseases ("NIAID"), a part of the National Institutes of Health ("NIH"), the Company billed using NIH's provisional rates and thus is subject to future audits at the discretion of NIAID's contracting office. These audits can result in an adjustment to revenue previously reported which potentially could be material. In addition, under the contracts with HCRP, the amortization for the reporting period is calculated based on the payments expected to be made by the licensees to HCRP over the term of the arrangement. Any changes to the estimated payments by the licensees to HCRP can result in a material adjustment to revenue previously reported.

Revenue Recognition

Effective January 1, 2018, the Company adopted Accounting Standards Codification (“ASC”) Topic 606, Revenue from Contracts with Customers ("ASC 606") using the modified retrospective transition method and applied the standard only to contracts that were still active or in place at that date. Also, as permitted, the Company applied the practical expedient under ASC 606 which permits the Company to treat all contract modifications that occurred prior to the adoption in aggregate when determining the performance obligations, transaction price and its allocation. Except for the Company’s license agreement with Rezolute, Inc. (formerly AntriaBio, Inc.) (“Rezolute”), the Company did not have any other contracts with customers for which the Company had not completed its performance obligations as of the adoption date January 1, 2018. The license agreement with Rezolute was not considered a contract under ASC 606 as it was not probable that the Company would collect substantially all of the consideration to which it will be entitled in exchange for the goods or services that were transferred to Rezolute and there was no consideration exchanged upon execution of the arrangement or as of January 1, 2018 (see Note 4). Thus, the Company determined that the adoption of ASC 606 did not have a financial impact on the Company's consolidated financial statements. In addition, the adoption of ASC 606 has no material impact for tax purposes. This standard applies to all contracts with customers, except for contracts that are within the scope of other standards, such as leases, insurance, collaboration arrangements and financial instruments. Under ASC 606, the Company recognizes revenue when its customer obtains control of promised goods or services, in an amount that reflects the consideration which the Company expects to receive in exchange for those goods or services.

To determine revenue recognition for arrangements that the Company determines are within the scope of ASC 606, the Company performs the following five steps: (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when (or as) the Company satisfies a performance obligation. The Company only applies the five-step model to contracts when it is probable that Company will collect the consideration it is entitled to in exchange for the goods or services it transfers to the customer. At contract inception, once the contract is determined to be within the scope of ASC 606, the Company assesses the goods or services promised within each contract and determines those that are performance obligations, and assesses whether each promised good or service is distinct. The Company then recognizes as revenue the amount of the transaction price that is allocated to the respective performance obligation based on relative fair values, when (or as) the performance obligation is satisfied.

The Company recognizes revenue from its license and collaboration arrangements and royalties. The terms of the arrangements generally include payment to the Company of one or more of the following: non-refundable, upfront license fees, development, regulatory and commercial milestone payments, and royalties on net sales of licensed products.

License of intellectual property

If the license to the Company’s intellectual property is determined to be distinct from the other performance obligations identified in the arrangement, the Company recognizes revenue from non-refundable, upfront fees allocated to the license when the license is transferred to the customer and the customer is able to use and benefit from the license. For licenses that are bundled with other promises, such as transfer of related materials, process and know-how, the Company utilizes judgement to assess the nature of the combined performance obligation to determine whether the combined performance obligation is satisfied over time or at a point in time. Under the Company’s license agreements, the nature of the combined performance obligation is the granting of licenses to the customers as the other promises are not separately identifiable in the context of the arrangement. Since the Company grants the license to a customer as it exists at the point of transfer, and is not involved in any future development or commercialization of the products related to the license, the nature of the license is a right to use the Company’s intellectual property as

transferred. As such, the Company recognizes revenue related to the combined performance obligation upon completion of the delivery of the related materials, process and know-how (i.e., at a point in time).

Milestone payments

At the inception of each arrangement that includes development and regulatory milestone payments, the Company evaluates whether the milestones are considered probable of being reached and estimates the amount to be included in the transaction price. ASC 606 suggests two alternatives to use when estimating the amount of variable consideration: the expected value method and the most likely amount method. Under the expected value method, an entity considers the sum of probability-weighted amounts in a range of possible consideration amounts. Under the most likely amount method, an entity considers the single most likely amount in a range of possible consideration amounts. The Company expects to use the most likely amount method for development and regulatory milestone payments. If it is probable that a significant cumulative revenue reversal would not occur, the associated milestone value is included in the transaction price. Milestone payments that are not within the control of the Company or the licensee, such as regulatory approvals, are not considered probable of being achieved until those approvals are received. The transaction price is then allocated to each performance obligation on a relative stand-alone selling price basis. The Company recognizes revenue as or when the performance obligations under the contract are satisfied. At the end of each subsequent reporting period, the Company re-evaluates the probability or achievement of each such milestone and any related constraint, and if necessary, adjusts its estimates of the overall

transaction price. Any such adjustments are recorded on a cumulative catch-up basis, which would affect revenue and earnings in the period of adjustment.

Royalties

For arrangements that include sales-based royalties, including milestone payments based on the level of sales, and the license is deemed to be the predominant item to which the royalties relate, the Company recognizes revenue at the later of (i) when the related sales occur, or (ii) when the performance obligation to which some or all of the royalty has been allocated has been satisfied (or partially satisfied).

Upfront payments and fees are recorded as deferred revenue upon receipt or when due, and may require deferral of revenue recognition to a future period until the Company performs its obligations under these arrangements. Amounts payable to the Company are recorded as accounts receivable when the Company's right to consideration is unconditional. The Company does not assess whether a contract has a significant financing component if the expectation at contract inception is such that the period between payment by the customer and the transfer of the promised goods or services to the customer will be one year or less.

Sale of Future Revenue Streams

The Company has sold its rights to receive certain milestones and royalties on product sales. In the circumstance where the Company has sold its rights to future milestones and royalties under a license agreement and also maintains limited continuing involvement in the arrangement (but not significant continuing involvement in the generation of the cash flows that are due to the purchaser), the Company defers recognition of the proceeds it receives for the sale of milestone or royalty streams and recognizes such unearned revenue as revenue under units-of-revenue method over the life of the underlying license agreement. Under the units-of-revenue method, amortization for a reporting period is calculated by computing a ratio of the proceeds received from the purchaser to the total payments expected to be made to the purchaser over the term of the agreement, and then applying that ratio to the period's cash payment.

Estimating the total payments expected to be received by the purchaser over the term of such arrangements requires management to use subjective estimates and assumptions. Changes to the Company's estimate of the payments expected to be made to the purchaser over the term of such arrangements could have a material effect on the amount of revenues recognized in any particular period.

Stock-Based Compensation

The Company recognizes compensation expense for all stock-based payment awards made to the Company's employees, consultants and directors that are expected to vest based on estimated fair values. The valuation of stock option awards is determined at the date of grant using the Black-Scholes Option Pricing Model (the "Black-Scholes Model"). The Black-Scholes Model requires inputs such as the expected term of the option, expected volatility and risk-free interest rate. To establish an estimate of expected term, the Company considers the vesting period and contractual period of the award and its historical experience of stock option exercises, post-vesting cancellations and volatility. The estimate of expected volatility is based on the Company's historical volatility. The risk-free rate is based on the yield available on United States Treasury zero-coupon issues corresponding to the expected term of the award. The Company records forfeitures when they occur.

The Company records compensation expense for service-based awards over the vesting period of the award on a straight-line basis. For awards with performance-based conditions, at the point that it becomes probable that the performance conditions will be met, the Company records a cumulative catch-up of the expense from the grant date to the current date, and then amortizes the remainder of the expense over the remaining service period. Management

evaluates when the achievement of a performance-based condition is probable based on the expected satisfaction of the performance conditions as of the reporting date. The amount of stock-based compensation expense recognized during a period is based on the value of the portion of the awards that are ultimately expected to vest.

The valuation of restricted stock units (“RSUs”) is determined at the date of grant using the Company’s closing stock price.

Restructuring and Impairment Charges

Restructuring costs are primarily comprised of severance costs related to workforce reductions, contract termination costs, lease-related liability and asset impairments. The Company recognizes restructuring charges when the liability has been incurred, except for employee termination benefits that are incurred over time. Generally, employee termination benefits (i.e., severance costs) are accrued at the date management has committed to a plan of termination and employees have been notified of their termination dates and expected severance payments. Key assumptions in determining the restructuring costs include the terms and payments that may be negotiated to terminate certain contractual obligations and the timing of employees leaving the Company. Other costs, including contract termination costs, are recorded when the arrangement is terminated. Asset impairment charges have been, and will be, recognized when management has concluded that the assets have been impaired.

For lease-related liability, the Company recognizes the present value of facility lease-related obligations, net of estimated sublease income and other costs, when the Company has future payments with no future economic benefit. During the year ended December 31, 2018, the Company recorded accretion expense to increase the liability to an amount equal to the estimated future cash payments necessary to exit the leases. This requires judgment and management estimation to determine the expected time frame for securing a subtenant, the amount of sublease income to be received and the appropriate discount rate to calculate the present value of the future cash flows. Should actual lease costs differ from estimates, the Company may be required to adjust the restructuring charge which will impact operating expenses in the period any adjustment is recorded.

Cash and Cash Equivalents

The Company considers all highly liquid debt instruments with maturities of three months or less at the time the Company acquires them and that can be liquidated without prior notice or penalty to be cash equivalents.

Equity Securities

Effective January 1, 2018, the Company adopted Accounting Standards Update (“ASU”) 2016-01, Recognition and Measurement of Financial Assets and Financial Liabilities. The amendment requires equity investments (except those accounted for under the equity method, those that result in consolidation of the investee and certain other investments) to be measured at fair value with any changes in fair value recognized in net (loss) income. For equity investments that do not have readily determinable fair values and do not qualify for the existing practical expedient in ASC 820, Fair Value Measurements, to estimate fair value using the net asset value per share of the investment, the Company may choose to measure those investments at cost, less any impairment, plus or minus changes resulting from observable price changes in orderly transactions for the identical or a similar investment of the same issuer. In February 2018, the Financial Accounting Standards Board (“FASB”) also issued ASU 2018-03, Recognition and Measurement of Financial Assets and Financial Liabilities (ASU 2018-03), which made improvements to address certain aspects of recognition, measurement, presentation and disclosure of financial instruments. ASU 2018-03 is effective for fiscal years beginning after December 15, 2017, and interim periods beginning after June 15, 2018, but may be adopted concurrently with ASU 2016-01. As permitted, the Company adopted ASU 2016-01 and ASU 2018-03 concurrently on January 1, 2018. The adoption had no impact on the consolidated financial statements as the Company did not have any equity investments that existed as of the adoption date.

Subsequent to the adoption date, the Company received shares of common stock from Rezolute (Note 4). Equity investments in Rezolute are classified in the consolidated balance sheets as long-term equity securities. The equity securities are measured at fair value, with changes in fair value recorded in other income (expense), net line item of the consolidated statement of operations and comprehensive (loss) income at each reporting period. The Company remeasures its equity investments at each reporting period until such time that the investment is sold or disposed of. If

the Company sells an investment, any realized gains and losses on the sale of the securities will be recognized in the consolidated statement of operations and comprehensive (loss) income in the period of sale.

Property and Equipment

Property and equipment is stated at cost less depreciation. Equipment depreciation is calculated using the straight-line method over the estimated useful lives of the assets (three years). Leasehold improvements were depreciated using the straight-line method over the shorter of the lease terms or the useful lives. Amortization expense for assets acquired through capital leases was included in depreciation expense in the consolidated statements of operations and comprehensive (loss) income. Upon the sale, retirement or disposal of assets, the cost and related accumulated depreciation and amortization are removed from the consolidated balance sheets, and the resulting gain or loss, if any, is reflected in other income (expense), net in the consolidated statements of operations and comprehensive (loss) income. Repairs and maintenance costs are charged to expense as incurred.

The carrying value of the property and equipment is reviewed for impairment whenever events or changes in circumstances indicate that the asset may not be recoverable. An impairment loss would be recognized when estimated future cash flows expected to result from the use of the asset and its eventual disposition is less than its carrying amount. During the year ended December 31, 2018, the Company recognized no impairment charges. During the year ended December 31, 2017, the Company recognized impairment charges of $0.2 million recorded in other income, net line in the consolidated statements of operations and comprehensive income.

Purchase of Rights to Future Milestones and Royalties

The Company has purchased rights to receive a portion of certain future developmental, regulatory and commercial sales milestones, and royalties on sales of products currently in clinical development. The Company acquired such rights from Agenus, Inc., and certain affiliates (collectively, “Agenus”), in September 2018 and recorded the amount paid for these rights as long-term royalty receivables (refer to Note 5). The Company has accounted for the purchased rights as a financial asset in accordance with ASC 310, Receivables.

The Company accounts for milestone and royalty rights related to developmental pipeline products on a non-accrual basis using the cost recovery method. These developmental pipeline products are non-commercialized, non-approved products that require Food and Drug Administration (“FDA”) or other regulatory approval, and thus have uncertain cash flows. The Company is not yet able to reliably forecast future cash flows given their pre-commercial stages of development. The related receivable balance is classified as noncurrent since no payments are probable to be received in the near term. Under the cost recovery method, any milestone or royalty received is recorded as a direct reduction of the recorded receivable balance. When the recorded receivable balance has been fully collected, any additional amounts collected are recognized as revenue.

The Company reviews any impairment indicators and changes in expected recoverability of the long-term royalty receivable asset regularly. If expected future cash flows discounted to the current period are less than the carrying value of the asset, the Company will record impairment. The impairment will be recognized by reducing the financial asset to an amount that represents the present value of the most recent estimate of cash flows. No impairment was recorded as of December 31, 2018.

Warrants

The Company has issued warrants to purchase shares of its common stock in connection with financing activities. The Company classifies these warrants as equity and are recorded at fair value as of the date of issuance on the Company’s consolidated balance sheet and no further adjustments to their valuation are made. The fair value of the outstanding warrants was estimated using the Black-Scholes Model. The Black-Scholes Model required inputs such as the expected term of the warrants, expected volatility and risk-free interest rate. These inputs were subjective and required significant analysis and judgment to develop. For the estimate of the expected term, the Company used the full remaining contractual term of the warrant. The Company determined the expected volatility assumption in the Black-Scholes Model based on historical stock price volatility observed on the Company’s underlying stock.

Income Taxes

The Company accounts for income taxes using the liability method under which deferred tax assets and liabilities are determined based on differences between financial reporting and tax bases of assets and liabilities and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. Valuation allowances are established when necessary to reduce deferred tax assets to the amount which is more likely than not to be realizable.

The recognition, derecognition and measurement of a tax position is based on management's best judgment given the facts, circumstances and information available at each reporting date. The Company's policy is to recognize interest and penalties related to the underpayment of income taxes as a component of income tax expense. To date, there have been no interest or penalties charged in relation to the unrecognized tax benefits.

Net (Loss) Income per Share Available to Common Stockholders

Basic net (loss) income per share available to common stockholders is based on the weighted average number of shares of common stock outstanding during the period. Net (loss) income available to common stockholders consists of net (loss) income, as adjusted for any convertible preferred stock deemed dividends related to beneficial conversion features on this instrument at issuance. During periods of income, the Company allocates participating securities a proportional share of net income, after deduction of any deemed dividends on preferred stock, determined by dividing total weighted average participating securities by the sum of the total weighted average number of common stock and participating securities (the “two-class method”). The Company’s convertible preferred stock participates in any dividends declared by the Company on its common stock and are therefore considered to be participating securities. For the year ended December 31, 2017, the convertible preferred stock had a deemed dividend which represented the accretion of a beneficial conversion feature. As such, the net income for the year ended December 31, 2017 was adjusted for the convertible preferred stock deemed dividend related to the beneficial conversion feature on these shares at issuance.

During periods of loss, the Company allocates no loss to participating securities because they have no contractual obligation to share in the losses of the Company. Diluted net (loss) income per share available to common stockholders is based on the weighted average number of shares outstanding during the period, adjusted to include the assumed conversion of preferred stock, and the exercise of certain stock options, RSUs, and warrants for common stock. The calculation of diluted (loss) income per share available to common stockholders requires that, to the extent the average market price of the underlying shares for the reporting period exceeds the exercise price of any outstanding options, RSUs or warrants and the presumed exercise of such securities are dilutive to earnings (loss) per share available to common stockholders for the period. Adjustments to the denominator are required to reflect the related dilutive shares.

Comprehensive (Loss) Income

Comprehensive (loss) income is comprised of two components: net (loss) income and other comprehensive (loss) income. Other comprehensive (loss) income refers to gains and losses that under U.S. GAAP are recorded as an element of stockholders’ equity but are excluded from net (loss) income. The Company did not record any transactions within other comprehensive (loss) income in the periods presented and, therefore, the net (loss) income and comprehensive (loss) income were the same for all periods presented.

Recent Accounting Pronouncements

In February 2016, the FASB issued ASU 2016-02, Leases (Topic 842). ASU 2016-02 is aimed at making leasing activities more transparent and comparable and requires substantially all leases be recognized by lessees on their balance sheet as a right-of-use asset and corresponding lease liability, including leases currently accounted for as operating leases. Early adoption is permitted and must be adopted using a modified retrospective approach. In July 2018, however, the FASB issued ASU 2018-11, Leases (Topic 842): Targeted Improvements, which provides entities with an additional (and optional) transition method which would enable entities to initially apply the new leases standard at the adoption date and recognize a cumulative-effect adjustment to the opening balance of retained earnings/accumulated deficit. This optional transition method is in addition to the modified retrospective transition approach included in ASU 2016-02. The new standard will be effective for the Company on January 1, 2019 and will be adopted using the optional transition method by recognizing a cumulative effect adjustment to the opening balance of retained earnings as of that date. The effect of adoption on the Company’s financial statements will depend on the leases in effect and the Company’s borrowing rates at that time. The Company will recognize a material right-of-use asset and corresponding lease liability on the balance sheet upon adoption for its existing leases but does not expect the adoption to significantly impact its consolidated statement of operations and comprehensive (loss) income.

In June 2018, the FASB issued ASU 2018-07, Compensation- Stock Compensation (Topic 718) “Improvements to Nonemployee Share-Based Payment Accounting,” which expands the scope of Topic 718 to include all share-based payment transactions for acquiring goods and services from nonemployees. An entity should apply the requirements of Topic 718 to nonemployee awards except for certain exemptions specified in the amendment. ASU 2018-07 is effective for the Company’s interim and annual reporting periods during the year ending December 31, 2019, and all annual and interim reporting periods thereafter. Early adoption is permitted, but no earlier than an entity’s adoption date of Topic 606. The Company elected to early adopt this standard on June 30, 2018. The adoption did not have a material impact on its consolidated financial statements.

In August 2018, the FASB issued ASU 2018-13, Fair Value Measurement (Topic 820), which modifies, removes and adds certain disclosure requirements on fair value measurements based on the FASB Concepts Statement, Conceptual Framework for Financial Reporting—Chapter 8: Notes to Financial Statements. The ASU is effective for the Company's interim and annual reporting periods during the year ending December 31, 2020, and all annual and interim reporting period thereafter. The amendments on changes in unrealized gains and losses, the range and weighted average of significant unobservable inputs used to develop Level 3 fair value measurements and the narrative description of measurement uncertainty should be applied prospectively for only the most recent interim or annual period presented in the initial fiscal year of adoption. All other amendments should be applied retrospectively to all periods presented upon their effective date. Early adoption is permitted upon issuance of ASU 2018-13. An entity is permitted to early adopt any removed or modified disclosures upon issuance of ASU 2018-13 and delay adoption of the additional disclosures until their effective date. The Company early adopted the guidance related to removal of disclosures upon issuance of this ASU and will delay adoption of additional disclosures as permitted under the ASU. The Company does not believe adoption of the guidance will have a significant impact on its consolidated financial statements.

In November 2018, the FASB issued ASU 2018-18, Collaborative Arrangements (Topic 808) "Clarifying the Interaction between Topic 808 and Topic 606," which requires transactions in collaborative arrangements to be accounted for under ASC 606 if the counterparty is a customer for a good or service that is a distinct unit of account. The new standard also precludes an entity from presenting consideration from transactions with a collaborator that is not a customer together with revenue recognized from contracts with customers. The ASU is effective for the Company's interim and annual reporting periods during the year ending December 31, 2020, and all annual and interim reporting period thereafter. Early adoption is permitted, but no earlier than an entity's adoption date of Topic 606. This ASU requires retrospective adoption to the date the Company adopted ASC 606, January 1, 2018, by recognizing a cumulative-effect adjustment to the opening balance of retained earnings of the earliest annual period presented. The Company may elect to apply the ASU retrospectively either to all contracts or only to contracts that are not completed at the date it initially applied ASC 606. The Company is in the process of accessing the impact of ASU 2018-18 on its consolidated financial statements.

3. Consolidated Financial Statement Detail

Cash and Cash Equivalents

At December 31, 2018, cash and cash equivalents consisted of demand deposits of $45.8 million. At December 31, 2017, cash and cash equivalents consisted of demand deposits of $8.6 million and money market funds of $34.9 million with maturities of less than 90 days at the date of purchase.

Long-term Equity Securities

At December 31, 2018, long-term equity securities consisted of an investment in Rezolute's common stock of $0.4 million (see Note 4). The Company recognized a loss of $0.6 million due to the change in fair value of its investment in Rezolute's common stock in other income, net line item of the consolidated statement of operations and comprehensive loss for the year ended December 31, 2018.

Property and Equipment, net

Property and equipment, net consisted of the following (in thousands):

	December 31,

	2018	2017
Equipment and furniture	$ 102	$ 124
Leasehold Improvements	27	—
	129	124
Less: Accumulated depreciation and amortization	(70)	(41)
Property and equipment, net	$ 59	$ 83

During the year ended December 31, 2017, the Company completed the sale of equipment and disposal of certain equipment located in one of its leased facilities for total proceeds of $1.6 million. The total carrying value of the equipment sold and disposed of was $0.4 million. Accordingly, the Company recorded a gain of $1.2 million on the sale and disposal of equipment in the other income, net line of the Company’s consolidated statement of operations and comprehensive income. The Company recorded depreciation expense of $30,000 and $0.3 million for the years ended December 31, 2018 and 2017, respectively.

Accrued and Other Liabilities

Accrued and other liabilities consisted of the following (in thousands):

	December 31,	
	2018	2017
Accrued legal and accounting fees	$396	$431
Accrued restructuring	1,361	130
Accrued incentive compensation	152	229
Deferred rent	—	765
Liability related to sublease	84	800
Accrued payroll and other benefits	155	141
Other	234	197
Total	$2,382	$2,693

4. Licensing and Other Arrangements

Novartis – Gevokizumab (VPM087) and IL-1 Beta

On August 24, 2017, the Company and Novartis Pharma AG ("Novartis") entered into a license agreement (the "XOMA-052 License Agreement") under which the Company granted to Novartis an exclusive, worldwide, royalty-bearing license to gevokizumab ("VPM087"), a novel anti-Interleukin-1 ("IL-1") beta allosteric monoclonal antibody (the "Antibody") and related know-how and patents (altogether, the "XOMA IP"). Under the terms of the XOMA-052 License Agreement, Novartis will be solely responsible for the development and commercialization of the Antibody and products containing the Antibody.

On August 24, 2017, pursuant to a separate agreement (the "IL-1 Target License Agreement"), the Company granted to Novartis non-exclusive licenses to its intellectual property covering the use of IL-1 beta targeting antibodies in the treatment and prevention of cardiovascular disease and other diseases and conditions, and an option to obtain an exclusive license (the "Exclusivity Option") to such intellectual property for the treatment and prevention of cardiovascular disease.

Under the XOMA-052 License Agreement, the Company received total consideration of $30.0 million for the license and rights granted to Novartis. Of the total consideration, $15.7 million was paid in cash and $14.3 million (equal to €12.0 million) was paid by Novartis Institutes for BioMedical Research, Inc. ("NIBR"), on behalf of the Company, to settle the Company's outstanding debt with Les Laboratories Servier ("Servier") (the "Servier Loan"). In addition, NIBR extended the maturity date on the Company's debt to Novartis. The Company also received $5.0 million cash related to the sale of 539,131 shares of the Company's common stock, at a purchase price of $9.2742 per share. The fair market value of the common stock issued to Novartis was $4.8 million, based on the closing stock price of $8.93 per share on August 24, 2017, resulting in a $0.2 million premium paid to the Company.

Based on the achievement of pre-specified criteria, the Company is eligible to receive up to $438.0 million in development, regulatory and commercial milestones under the XOMA-052 License Agreement. The Company is also eligible to receive royalties on sales of licensed products, which are tiered based on sales levels and range from the

high single digits to mid-teens. Under the IL-1 Target License Agreement, the Company received an upfront cash payment of $10.0 million and is eligible to receive low single-digit royalties on canakinumab sales in cardiovascular indications covered by the Company's patents. Should Novartis exercise the Exclusivity Option, the royalties on canakinumab sales will increase to the mid-single digits.

Unless terminated earlier, the XOMA-052 License Agreement and IL-1 Target License Agreement will remain in effect, on a country-by-country and product-by-product basis, until Novartis' royalty obligations end. The two agreements contain customary termination rights relating to material breach by either party. Novartis also has a unilateral right to terminate the XOMA-052 License Agreement on a product-by-product and country-by-country basis or in its entirety on six months' prior written notice to the Company. Under the IL-1 Target License Agreement, Novartis has a unilateral right to terminate the agreement on a product-by-product and country-by-country basis or in its entirety upon a prior written notice. The XOMA-052 License Agreement and IL-1 Target License Agreement were accounted for as one arrangement because they were entered into at the same time in contemplation of each other. The Company concluded that there are multiple promised goods and services under the combined arrangement, including the transfer of license to IL-1 beta targeting antibodies, and the transfer of license, know-how, process, materials and inventory related to the VPM087antibody, which were determined to represent two distinct performance obligations. The Company determined that the Exclusivity Option is not an option with material right because the upfront payments to the Company were not negotiated to provide an incremental discount for the future additional royalties upon exercise of the Exclusivity Option. Therefore, the Company concluded that the Exclusivity Option is not a performance obligation. The additional royalties will be recognized as revenue when, and if, Novartis exercises its option because the Company has no further performance obligations at that point.

At the inception of the arrangement, the Company determined that the transaction price under the arrangement was $40.2 million, which consisted of the $25.7 million upfront cash payments, the $14.3 million Servier Loan payoff and the $0.2 million premium on the sale of the common stock. The transaction price was allocated to the two performance obligations based on their standalone selling prices. The Company determined that the nature of the two performance obligations is the right to use the licenses as they exist at the point of transfer, which occurred when the transfer of materials, process and know-how, and filings to regulatory authority were completed. During the year ended December 31, 2017, the Company recognized the entire transaction price of $40.2 million as revenue upon completion of the delivery of the licenses and related materials, process and know-how and filings to regulatory authority.

The Company concluded that the development and regulatory milestone payments are solely dependent on Novartis' performance and achievement of specified events. The Company determined that it is not probable that a significant cumulative revenue reversal will not occur in future periods for these future payments. Therefore, the development and regulatory milestones are fully constrained and excluded from the transaction price as of December 31, 2018. Any consideration related to commercial milestones (including royalties) will be recognized when the related sales occur as they were determined to relate predominantly to the licenses granted to Novartis and therefore, have also been excluded from the transaction price. At the end of each reporting period, the Company will update its assessment of whether an estimate of variable consideration is constrained and update the estimated transaction price accordingly.

As of December 31, 2018 and December 31, 2017, there are no contract assets or contract liabilities related to this arrangement. In addition, the Company did not recognize any revenue related to this arrangement during the year ended December 31, 2018. None of the costs to obtain or fulfill the contract were capitalized.

Novartis International – Anti-TGF Antibody

On September 30, 2015, the Company and Novartis International Pharmaceutical Ltd. ("Novartis International") entered into a license agreement (the "License Agreement") under which the Company granted Novartis International an exclusive, world-wide, royalty-bearing license to the Company's anti-transforming growth factor beta (TGF) antibody program (now "NIS793"). Under the terms of the License Agreement, Novartis International has worldwide rights to NIS793 and is responsible for the development and commercialization of antibodies and products containing antibodies arising from NIS793. Unless terminated earlier, the License Agreement will remain in effect, on a country-by-country and product-by-product basis, until Novartis International's royalty obligations end. The License Agreement contains customary termination rights relating to material breach by either party. Novartis International also has a unilateral right to terminate the License Agreement on an antibody-by-antibody and country-by-country basis or in its entirety on one hundred eighty days' notice.

The Company concluded that there are multiple promised goods and services under the License Agreement, including the transfer of license, regulatory services and transfer of materials, process and know-how, which were determined to represent one combined performance obligation. The Company recognized the entire upfront payment of $37.0 million as revenue in the consolidated statement of comprehensive loss in 2015 as it had completed its performance obligations as of December 31, 2015.

During the year ended December 31, 2017, Novartis International achieved a clinical development milestone pursuant to the License Agreement and, as a result, the Company earned a $10.0 million milestone payment which was recognized as license fees in the consolidated statement of operations and comprehensive income. As of December 31, 2018, the Company is eligible to receive up to a total of $470.0 million in development, regulatory and commercial milestones.

The Company concluded that the development and regulatory milestone payments are solely dependent on Novartis' performance and achievement of the specified events. The Company determined that it is not probable that a significant cumulative revenue reversal will not occur in future periods for these future payments. Therefore, the remaining development and regulatory milestones are fully constrained and excluded from the transaction price as of December 31, 2018. Any consideration related to commercial milestones (including royalties) will be recognized when the related sales occur as they were determined to relate predominantly to the licenses granted to Novartis and therefore, have also been excluded from the transaction price. At the end of each reporting period, the Company will update its assessment of whether an estimate of variable consideration is constrained and update the estimated transaction price accordingly.

The Company is also eligible to receive royalties on sales of licensed products, which are tiered based on sales levels and range from a mid-single digit percentage rate to up to a low double-digit percentage rate. Novartis International's obligation to pay royalties with respect to a particular product and country will continue for the longer of the date of expiration of the last valid patent claim covering the product in that country, or ten years from the date of the first commercial sale of the product in that country.

As of December 31, 2018 and December 31, 2017, there are no contract assets or contract liabilities related to this arrangement. None of the costs to obtain or fulfill the contract were capitalized.

Rezolute

On December 6, 2017, the Company entered into a license agreement with Rezolute pursuant to which the Company granted an exclusive global license to Rezolute to develop and commercialize X358 (now "RZ358") for all indications. The Company and Rezolute also entered into a common stock purchase agreement pursuant to which Rezolute agreed to issue to the Company, as consideration for receiving the license for RZ358, a certain number of its common stock related to its future financing activities.

Under the terms of the license agreement, Rezolute is responsible for all development, regulatory, manufacturing and commercialization activities associated with RZ358 and is required to make certain development, regulatory and commercial milestone payments to the Company of up to $232.0 million in the aggregate based on the achievement of pre-specified criteria. Under the license agreement, the Company is also eligible to receive royalties ranging from the high single digits to the mid-teens based upon annual net sales of any commercial product incorporating RZ358. Rezolute is obligated to take customary steps to advance RZ358, including using diligent efforts to commence the next clinical study for RZ358 by a certain deadline and to meet certain spending requirements on an annual basis for the program until a marketing approval application for RZ358 is accepted by the FDA. Rezolute's obligation to pay royalties with respect to a particular RZ358 product and country will continue for the longer of the date of expiration of the last valid patent claim covering the product in that country, or twelve years from the date of the first commercial sale of the product in that country. Rezolute has an option through June 1, 2019 to obtain an exclusive license for their choice of one of the Company's preclinical monoclonal antibody fragments, including X129, in exchange for a $1.0 million upfront option fee and additional clinical, regulatory and commercial milestone payments to the Company of up to $237.0 million in the aggregate based on the achievement of pre-specified criteria as well as royalties ranging from the high single digits to the mid-teens based on annual net sales.

Pursuant to the license agreement and common stock purchase agreement, the Company is eligible to receive $6.0 million in cash and $12.0 million of Rezolute's common stock contingent on the completion of Rezolute's financing activities. Further, in the event that Rezolute does not complete a financing that raises at least $20.0 million in aggregate gross proceeds ("Qualified Financing") by March 31, 2019 (the "2019 Closing"), the Company will receive an additional number of shares of Rezolute's common stock equal to $7.0 million divided by the weighted average of the closing bid and ask prices or the average closing prices of Rezolute's common stock on the ten-day trading period prior to March 31, 2019. Finally, in the event that Rezolute is unable to complete a Qualified Financing by March 31, 2020, the Company is eligible to receive $15.0 million in cash in order to maintain the license. Under the common stock purchase agreement, Rezolute granted the Company the right and option to sell the greater of (i) 5,000,000 shares of common stock or (ii) one third of the aggregate shares held by the Company upon failure by Rezolute to list its shares of its common stock on the Nasdaq Stock Market or a similar national exchange on or prior to December 31, 2018.

In addition, under the terms of the license agreement, the Company is eligible to receive a low single digit royalty on sales of Rezolute's other products from its current programs. Rezolute's obligation to pay royalties with respect to a particular Rezolute product and country will continue for the longer of twelve years from the date of the first commercial sale of the product in that country or for so long as Rezolute or its licensee is selling such product in such country, provided that such royalty will terminate upon the termination of the licensee's obligation to make payments to Rezolute based on sales of such product in such country.

The license agreement contains customary termination rights relating to material breach by either party. Rezolute also has a unilateral right to terminate the license agreement in its entirety on ninety days' notice at any time. The Company has the right to terminate the license agreement if Rezolute challenges the licensed patents.

On March 30, 2018, the Company and Rezolute amended the license agreement and common stock purchase agreement. The license agreement was amended to add terms specifying the financial responsibility for certain tasks

related to the technology transfer of RZ358 license. The common stock purchase agreement was amended as follows: (1) adjusted the total shares due upon the Initial Closing (as defined in the common stock purchase agreement) from $5.0 million in value to 7,000,000 shares; (2) increased the shares due upon a Qualified Financing from $7.0 million in value to $8.5 million in value; and (3) increased the shares due upon the 2019 Closing from $7.0 million in value to $8.5 million in value. All other terms of the license agreement and common stock purchase agreement remain unchanged.

Under the license agreement and common stock purchase agreement, no consideration was exchanged upon execution of the arrangement. In consideration for receiving the license for RZ358, Rezolute agreed to issue shares of its common stock and pay cash to the Company upon the occurrence of Rezolute's financing activities and the amounts to be paid will be based on the timing of those activities.

Upon execution of the arrangement, the Company determined that it is not probable that the Company will collect substantially all of the consideration to which it will be entitled in exchange for the goods or services that will be transferred to Rezolute. Therefore, the Company determined no contract with a customer existed upon adoption of ASC 606 on January 1, 2018.

During the three months ended March 31, 2018, Rezolute completed an Interim Financing Closing as defined in the common stock purchase agreement resulting in consideration due to XOMA consisting of 69,252 shares of Rezolute's common stock and cash of $50,000. In addition, during the three months ended March 31, 2018, the Company completed the delivery of the license and related

materials, product data/filing, process and know-how to Rezolute. However, the Company determined that the achievement of the Interim Financing Closing and related consideration as well as the amendment in March 2018 were not substantive to overcome the collectability criterion required to establish a contract under ASC 606. Thus, there was no contract as of March 31, 2018 and no revenue was recognized during the three months ended March 31, 2018 under the arrangement.

On April 3, 2018, Rezolute closed a debt financing activity for gross proceeds of $4.0 million, which triggered the Initial Closing defined under the amended common stock purchase agreement between the Company and Rezolute. As such, pursuant to the terms of the amended common stock purchase agreement with Rezolute, the Company received 8,023,758 shares of Rezolute's common stock and cash of $0.5 million. The cash and share consideration in connection with the Interim Financing Closing during the three months ended March 31, 2018 and Initial Closing as noted above were received in April 2018. Under the amended license agreement, XOMA was also entitled to receive $0.3 million of reimbursable technology transfer expenses from Rezolute. The Company concluded that the payment associated with the Initial Closing represents substantially all consideration for the delivered license and technology to Rezolute. Therefore, the Company determined that a contract exists between Rezolute and XOMA under ASC 606 on April 3, 2018.

The amended license agreement and amended common stock purchase agreement were accounted for as one arrangement because they were entered into at the same time in contemplation of each other. The Company concluded that there are multiple promised goods and services under the combined arrangement, including the license to RZ358, the transfer of RZ358 materials and product data/filing, and the transfer of process and know-how related to RZ358, which were determined to represent one combined performance obligation. The Company determined that the Additional Product Option is not an option with material right because there was no upfront consideration to the Company that would result to an incremental discount for the future opt in payments. Therefore, the Company concluded that the Additional Product Option is not a performance obligation. The option fee will be recognized as revenue when, and if, Rezolute exercises its option because the Company has no further performance obligations at that point.

On April 3, 2018, the Company determined that the transaction price under the arrangement was $1.8 million, which consisted of the 8,093,010 shares of Rezolute's common stock valued at $1.0 million, $0.5 million in cash, and reimbursable technology transfer expenses of $0.3 million. During the year ended December 31, 2018, the Company recognized the entire transaction price of $1.8 million as revenue upon completion of the delivery of the licenses and related materials, product data/filing, process and know-how. The change in fair value of Rezolute's common stock after the contract inception date was due to the form of the consideration and therefore, not included in the transaction price pursuant to the accounting guidance. The Company accounts for the change in the fair value of its investment in Rezolute's common stock in other income (expense), net line item of the consolidated statement of operations and comprehensive (loss) income.

The Company concluded that the development and regulatory milestone payments are solely dependent on Rezolute's performance and achievement of the specified events. The Company determined that it is not probable that a significant cumulative revenue reversal will not occur in future periods for these future payments. Therefore, the development and regulatory milestones are fully constrained and excluded from the transaction price as of December 31, 2018. Any consideration related to commercial milestones (including royalties) will be recognized when the related sales occur as they were determined to relate predominantly to the licenses granted to Rezolute and therefore, have also been excluded from the transaction price. At the end of each reporting period, the Company will update its assessment of whether the estimate of variable consideration is constrained and update the estimated transaction price accordingly.

As of December 31, 2018, the Company has a receivable from Rezolute related to the reimbursable technology transfer expenses of $0.3 million included in trade and other receivables on the consolidated balance sheet. As of December 31, 2018, there was no contract liability related to this arrangement. As of December 31, 2017, there were no contract assets or contract liability related to this arrangement. None of the costs to obtain or fulfill the contract were capitalized.

NIAID

Prior to the sale of the Company's biodefense business discussed in Note 7, the Company performed services under a $64.8 million multiple-year contract funded with federal funds from NIAID (Contract No. HHSN272200800028C), for development of anti-botulinum antibody product candidates. The contract work was being performed on a cost plus fixed fee basis over a three-year period. The Company recognized revenue under the arrangement as the services were performed on a proportional performance basis. Consistent with the Company's other contracts with the U.S. government, invoices were provisional until finalized. The Company operated under provisional rates from 2010 through 2014, subject to adjustment based on actual rates upon agreement with the government. In 2014, upon completion of NIAID's review of hours and external expenses, XOMA agreed to exclude certain hours and external expenses resulting in a $0.4 million receivable and $0.8 million deferred revenue balances. As of December 31, 2017, the Company wrote off the $0.4 million receivable from NIAID as the likelihood of collection is remote. The Company classified $0.8 million as contract liabilities on the consolidated balance sheets as of December 31, 2018 and December 31, 2017.

Sale of Future Revenue Streams

On December 21, 2016, the Company entered into two Royalty Interest Acquisition Agreements (together, the "Acquisition Agreements") with HCRP. Under the first Acquisition Agreement, the Company sold its right to receive milestone payments and royalties on future sales of products subject to a License Agreement, dated August 18, 2005, between XOMA and Wyeth Pharmaceuticals (subsequently acquired by Pfizer, Inc. ("Pfizer")) for an upfront cash payment of $6.5 million, plus potential additional payments totaling $4.0 million in the event three specified net sales milestones are met in 2017, 2018 and 2019. The 2017 sales milestone was not achieved. Based on estimated sales for 2018, the 2018 sales milestone was not achieved. The Company remains eligible to receive up to $2.0 million if specified net sales milestones are achieved in 2019. Under the second Acquisition Agreement entered into in December 2016, the Company sold all rights to royalties under an Amended and Restated License Agreement dated October 27, 2006 between XOMA and Dyax Corp. for a cash payment of $11.5 million.

The Company classified the proceeds received from HCRP as unearned revenue, to be recognized as revenue under units-of-revenue method over the life of the license agreements because of the Company's limited continuing involvement in the Acquisition Agreements. Such limited continuing involvement is related to the Company's undertaking to cooperate with HCRP in the event of litigation or a dispute related to the license agreements. Because the transaction was structured as a non-cancellable sale, the Company does not have significant continuing involvement in the generation of the cash flows due to HCRP and there are no guaranteed rates of return to HCRP, the Company recorded the total proceeds of $18.0 million as unearned revenue recognized under units-of-revenue method. The Company allocated the total proceeds between the two Acquisition Agreements based on the relative fair value of expected payments to be made to HCRP under the license agreements. The unearned revenue is being recognized as revenue over the life of the underlying license agreements under the "units-of-revenue" method. Under this method, amortization for a reporting period is calculated by computing a ratio of the allocated proceeds received from HCRP to the payments expected to be made by the licensees to HCRP over the term of the Acquisition Agreements, and then applying that ratio to the period's cash payment. During the third quarter of 2018, the Shire product underlying the Dyax Corp. license agreement was approved, and the Company began recognizing revenue under the units-of-revenue method due to sales of the approved product.

The Company recognized $0.2 million and $0.3 million as revenue under units-of-revenue method under these arrangements during the years ended December 31, 2018 and December 31, 2017, respectively. As of December 31, 2018, the current and non-current portion of the remaining unearned revenue recognized under units-of-revenue method was $0.5 million and $17.0 million, respectively. As of December 31, 2017, the Company classified $0.6 million and $17.1 million as current and non-current unearned revenue recognized under units-of-revenue method, respectively.

5. Agenus Royalty Purchase Agreement

On September 20, 2018, the Company entered into a Royalty Purchase Agreement (the "Royalty Purchase Agreement") with Agenus. Under the Royalty Purchase Agreement, the Company purchased from Agenus the right to receive 33% of the future royalties on six Incyte immuno-oncology assets, currently in development, due to Agenus from Incyte Europe Sarl ("Incyte") (net of certain royalties payable by Agenus to a third party) and 10% of all future developmental, regulatory and commercial milestones related to these assets. However, the Company did not have a right to the expected near-term milestone associated with the entry of INCAGN2390 (anti-TIM-3) into the clinical trials. The future royalties due to Agenus from Incyte are based on low-single to mid-teen digit percentage of applicable net sales. In addition, the Company purchased from Agenus the right to receive 33% of the future royalties on an undisclosed Merck immuno-oncology product currently in clinical development due to Agenus from Merck Sharp &

Dohme Corp. (“Merck”) and 10% of all future developmental, regulatory and commercial milestones related to this asset. The future royalties due to Agenus from Merck are based on low single digit percentage of applicable net sales. Pursuant to the Royalty Purchase Agreement, the Company’s share in future potential development, regulatory and commercial milestones is up to $59.5 million. There is no limit on the amount of future royalties on sales that the Company may receive under the agreements.

Under the terms of the Royalty Purchase Agreement, the Company paid Agenus $15.0 million. The Company financed $7.5 million of the purchase price with a term loan under its Loan and Security Agreement with Silicon Valley Bank (“SVB”) (see Note 9).

As of December 31, 2018, the Company recorded $15.0 million as long-term royalty receivables in its consolidated balance sheet. No payments are probable to be received under this agreement in the near term. Under the cost recovery method, the Company does not expect to recognize any income related to milestones and royalties received until the investment of $15.0 million has been fully collected.

6. Fair Value Measurements

The Company records its financial assets and liabilities at fair value. The carrying amounts of certain of the Company's financial instruments, including cash equivalents, trade receivable and accounts payable, approximate their fair value due to their short maturities. Fair value is defined as the exchange price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The accounting guidance for fair value establishes a framework for measuring fair value and a fair value hierarchy that prioritizes the inputs used in valuation techniques. The accounting standard describes a fair value hierarchy based on three levels of inputs, of which the first two are considered observable and the last unobservable, that may be used to measure fair value which are the following:

Level 1 – Observable inputs, such as quoted prices in active markets for identical assets or liabilities.

Level 2 – Observable inputs, either directly or indirectly, other than quoted prices in active markets for similar assets or liabilities, that are not active or other inputs that are not observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

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; therefore, requiring an entity to develop its own valuation techniques and assumptions.

The following tables set forth the Company's fair value hierarchy for its financial assets and liabilities measured at fair value on a recurring basis as follows (in thousands):

	Fair Value Measurements at December 31, 2018 Using			
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Assets:				
Long-term equity securities	$—	$ —	$ 392	$392

	Fair Value Measurements at December 31, 2017 Using			
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total

Assets:				
Money market funds [1]	$34,907	$ —	$ —	$34,907

(1) Included in cash and cash equivalents

During the years ended December 31, 2018 and 2017, there were no transfers between Level 1, Level 2, or Level 3 assets reported at fair value on a recurring basis and the valuation techniques used did not change compared to the Company's established practice.

The following table provides a summary of changes in the estimated fair value of the Company's Level 3 financial assets for the year ended December 31, 2018 (in thousands):

Balance at December 31, 2017	$—
Fair value of long-term equity securities at contract inception	955
Change in fair value	(563)
Balance at December 31, 2018	$392

The equity securities consisted of an investment in Rezolute's common stock and are classified as long-term assets on the consolidated balance sheet as of December 31, 2018. The long-term equity securities are revalued each reporting period with changes in fair value recorded in other income, net line item of the consolidated statement of operations and comprehensive (loss) income. The Company and its valuation specialist used a probability-weighted expected return model to measure the fair value of the securities. This valuation methodology is based on unobservable estimates and judgements, and therefore is classified as a Level 3 fair value measurement. Scenarios and probabilities were based on the Company's management estimates and were incorporated into the determination of the fair value of the equity securities.

The estimated fair value of the equity securities was calculated based on the following assumptions as of December 31, 2018 and the contract inception date of April 3, 2018:

	December 31, 2018		April 3, 2018	
Discount for lack of marketability	35	%	30	%
Estimated time to liquidity of shares	1.45 years		1.45 years	
Scenario probabilities				
Liquidation	20	%	65	%
Near-term sale	5	%	5	%
Near-term financing	75	%	30	%

Changes in any of the assumptions related to the unobservable inputs identified above may change the fair value of the long-term equity securities.

The estimated fair value of the Company's outstanding long-term debt is estimated using the net present value of the payments, discounted at an interest rate that is consistent with market interest rates, which is a Level 2 input. The carrying amount and the estimated fair value of the Company's outstanding long-term debt at December 31, 2018 and December 31, 2017, are as follows (in thousands):

	December 31, 2018		December 31, 2017	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
Novartis note	$15,193	$ 14,825	$14,572	$14,178
SVB Loan	7,286	7,281	—	—
Total	$22,479	$ 22,106	$14,572	$14,178

7. Dispositions

On November 4, 2015, XOMA and Ology Bioservices, Inc. ("Ology Bioservices") entered into an asset purchase agreement under which Ology Bioservices agreed to acquire XOMA's biodefense business and related assets (including certain contracts with the U.S. government), and to assume certain liabilities of XOMA. As part of the transaction, the parties entered into an intellectual property license agreement (the "Ology Bioservices License Agreement"), under which XOMA agreed to license to Ology Bioservices certain intellectual property rights related to the purchased assets. Under the Ology Bioservices License Agreement, the Company was eligible to receive

contingent consideration up to a maximum of $4.5 million in cash and 23,008 shares of common stock of Ology Bioservices, based upon Ology Bioservices achieving certain specified future operational objectives. In addition, the Company is eligible to receive 15% royalties on net sales of any future Ology Bioservices products covered by or involving the related patents or know-how.

In February 2017, the Company executed an Amendment and Restatement to both the asset purchase agreement and Ology Bioservices License Agreement primarily to (i) remove the obligation to issue 23,008 shares of Ology Bioservices under the asset purchase agreement, and (ii) revise the payment schedule related to the timing of the $4.5 million cash payments due to the Company under the Ology Bioservices License Agreement. Of the $4.5 million, $3.0 million was contingent upon Ology Bioservices achieving certain specified future operating objectives. In the first quarter of 2017, the Company became entitled to receive $1.6 million under the agreement that was received in quarterly payments through September 2018. In the third quarter of 2017, Ology Bioservices achieved the specified operating objectives and the Company earned the $3.0 million milestone fee that was received in monthly payments through July 2018. Based on the payment terms pursuant to the amended Ology Bioservices License Agreement, the Company is entitled to receive an aggregate of $4.6 million. The Company received $2.4 million during the year ended December 31, 2018, and $2.2 million during the year ended December 31, 2017, which was recognized as other income, net in the consolidated statements of operations and comprehensive (loss) income. No further payments remain under the agreement, but the Company is still eligible to receive royalties in the future.

8. Restructuring Charges

On December 19, 2016, the Board of Directors approved a restructuring of its business based on its decision to focus the Company's efforts on clinical development, with an initial focus on the X358 clinical programs. The restructuring included a reduction-in-force in which the Company terminated 57 employees (the "2016 Restructuring"). In early 2017, the Company further revised its strategy to prioritize out-licensing activities and further curtail research and development spending and terminated five additional employees (the "2017 Restructuring"). Charges related to these initiatives were complete by the end of fiscal 2017.

During the year ended December 31, 2017, the Company recorded charges of $3.4 million related to severance, other termination benefits and outplacement services in connection with the workforce reduction resulting from the 2017 Restructuring and 2016 Restructuring activities.

During the year ended December 31, 2018, the Company completely vacated both of its leased facilities in Berkeley, California and subleased the leased space to three subtenants. In connection with vacating this space, the Company recorded a discounted lease-related restructuring liability, which was calculated as the present value of the estimated future facility costs for which the Company would obtain no future economic benefit over the term of the lease, net of estimated future sublease income, and adjusted for the remaining balance of deferred rent of $0.7 million. The Company remeasured the restructuring liability based on changes to the timing and amount of actual and estimated future sublease income, which resulted in a lease-related restructuring liability of $1.4 million as of December 31, 2018. During the year ended December 31, 2018, the Company recorded lease-related restructuring charges of $1.3 million in its consolidated statements of operations and comprehensive loss.

In addition, in connection with the sublease agreement executed in April 2018, the Company recognized a loss on the sublease of $0.6 million, which was recorded in the restructuring charges line item of the consolidated statements of operations and comprehensive loss (see Note 14).

The Company classified the current portion of the combined lease-related liabilities of $1.4 million within accrued and other liabilities and the non-current portion of $0.3 million within other liabilities- non-current in its consolidated balance sheet as of December 31, 2018.

9. Long-Term Debt and Other Financings

Silicon Valley Bank Loan Agreement

On May 7, 2018 (the "Effective Date"), the Company executed a Loan and Security Agreement (the "Loan Agreement") with SVB. Under the Loan Agreement, upon the Company's request, SVB may make advances (each, a "Term Loan Advance") available to the Company up to $20.0 million (the "Term Loan"). The available fund may be increased up to $40.0 million upon the Company's request and approval by the bank subject to the Company's compliance with certain internal and credit requirements. The Company may borrow advances under the Term Loan from the Effective Date until the earlier of March 31, 2019 or an event of default (the "Draw Period"). Unless an event of default occurs, the period to draw may be extended to March 31, 2020, if the Company receives $20.0 million in gross cash proceeds from milestone/licensing payments by March 31, 2019. In the event of a default related to the Note Agreement with Novartis, SVB's obligation to make any credit extensions to the Company under the Loan Agreement will immediately terminate. The interest rate will be calculated at a rate equal to the greater of (i) 4.75%, and (ii) 0.25% plus the prime rate as reported from time to time in The Wall Street Journal.

Payments under the Loan Agreement are interest only until the first anniversary of the funding date of each Term Loan Advance. The interest-only period will be followed by equal monthly payments of principal and interest over 24

months. Each Term Loan Advance will mature at the earlier of (i) the 23 months following the applicable term loan amortization date for each such Term Loan Advance (ii) March 1, 2023, or (iii) 30 days prior to the earliest maturity of any portion of the Company's loan with Novartis (the "Loan Maturity Date"). After repayment, no Term Loan Advance (or any portion thereof) may be reborrowed.

The entire principal balance, including a final payment fee equal to 8.5% of the principal, will be due and payable on the Loan Maturity Date. If the Company prepays the Term Loan Advance prior to the Loan Maturity Date, it will pay SVB a prepayment premium, based on a prepayment fee equal to 3.00% of the amount prepaid, if the prepayment occurs on or before the first anniversary of the Effective Date, 2.00% of the amount prepaid, if the prepayment occurs after the first anniversary of the Effective Date but prior to the second anniversary of the Effective Date, and 1.00% of the amount prepaid if the prepayment occurs after the second anniversary of the Effective Date. In the event of a default, a default interest rate of an additional 4% may be applied to the outstanding payments due to SVB, and SVB may declare all outstanding obligations immediately due and payable and take such other actions as set forth in the Loan Agreement.

The Company's obligations under the Loan Agreement are secured by a security interest in substantially all of its assets, other than its intellectual property. The Loan Agreement includes customary affirmative and restrictive covenants, but does not include any financial maintenance covenants, and also includes standard events of default, including payment defaults.

In connection with the Loan Agreement, the Company issued a warrant to SVB which is exercisable in whole or in part for up to an aggregate of 6,332 shares of common stock with an exercise price of $23.69 per share (the "Warrant"). The Warrant may be exercised on a cashless basis and is exercisable within 10 years from the date of issuance or upon the consummation of certain acquisitions of the Company. The fair value of the Warrant issued to SVB was determined using the Black-Scholes Model and was estimated to be $0.1 million. As of December 31, 2018, the Warrant is outstanding. In addition, the Company incurred debt issuance costs of $0.2 million in connection with the Loan Agreement.

As of December 31, 2018, the Company has borrowed advances of $7.5 million under the Loan Agreement in connection with the Agenus royalty purchase agreement (see Note 5). As of December 31, 2018, the outstanding balance under the Loan Agreement was $7.3 million.

During the year ended December 31, 2018, the first Term Loan Advance was drawn, and the entire unamortized amount of deferred charges of $0.3 million was reclassified as a discount against the debt and will be amortized to interest expense over the term of the Term Loan Advance using the effective interest method. The Company recorded $0.1 million of non-cash interest expense resulting from the amortization of the discount and accretion of the final payment for the year ended December 31, 2018.

Novartis Note

In May 2005, the Company executed a secured note agreement (the "Note Agreement") with Novartis, which was due and payable in full in June 2015. Under the Note Agreement, the Company borrowed semi-annually to fund up to 75% of the Company's research and development and commercialization costs under its collaboration arrangement with Novartis, not to exceed $50.0 million in aggregate principal amount. Interest on the principal amount of the loan accrued at six-month LIBOR plus 2%, which was equal to 4.87% at December 31, 2018 is payable semi-annually in June and December of each year. Additionally, the interest rate resets in June and December of each year. At the Company's election, the semi-annual interest payments could be added to the outstanding principal amount, in lieu of a cash payment, as long as the aggregate principal amount did not exceed $50.0 million. The Company made this election for all interest payments. Loans under the Note Agreement were secured by the Company's interest in its collaboration with Novartis, including any payments owed to it thereunder.

On September 30, 2015, concurrent with the execution of a license agreement with Novartis International as discussed in Note 4, XOMA and NIBR, who assumed the rights to the note from Novartis Vaccines Diagnostics, Inc. executed an amendment to the Note Agreement (the "Secured Note Amendment") under which the parties extended the maturity date of the note from September 30, 2015 to September 30, 2020, and eliminated the mandatory prepayment previously required to be made with certain proceeds of pre-tax profits and royalties. In addition, upon achievement of a specified development and regulatory milestone, the then-outstanding principal amount of the note will be reduced by $7.3 million rather than the Company receiving such amount as a cash payment.

On September 22, 2017, in connection with the XOMA-052 License Agreement with Novartis, the Company and NIBR executed an amendment to the Secured Note Amendment under which the parties further extended the maturity date of the Secured Note Amendment from September 30, 2020 to September 30, 2022.

As of December 31, 2018 and December 31, 2017, the outstanding principal balance under the Secured Note Amendment was $15.2 million and $14.6 million, respectively, and was included in long-term debt in the accompanying consolidated balance sheets.

Servier Loan Agreement

In December 2010, in connection with the collaboration agreement entered into with Servier, the Company executed a loan agreement with Servier (the "Servier Loan Agreement"), which provided for an advance of €15.0 million (or $19.5 million at the exchange rate on the date of funding). The loan was secured by an interest in XOMA's intellectual property rights to VPM087and its use in indications worldwide, excluding certain rights in the U.S. and Japan. Interest was calculated at a floating rate based on a Euro Inter-Bank Offered Rate ("EURIBOR") and subjected to a cap.

The Company and Servier executed multiple amendments to the Servier Loan Agreement in 2015 and 2017 primarily to revise the timing of the payments and the maturity date of the loan. On August 25, 2017, NIBR settled the Servier Loan in cash by paying directly to Servier $14.3 million which represented the outstanding balance of the loan based on a euro to dollar exchange rate of 1.1932. The funds that NIBR paid directly to Servier were a portion of the upfront payment due to XOMA under the XOMA-052 License Agreement (see Note 4). As a result of the debt being fully paid, the intellectual property securing the Servier Loan Agreement was released. A loss on extinguishment of $0.1 million from the payoff of the loan was recognized in the consolidated statement of operations and comprehensive income during the year ended December 31, 2017.

Hercules Term Loan

On February 27, 2015, the Company entered into a loan and security agreement with Hercules Technology Growth Capital, Inc. (the “Hercules Term Loan”).

On March 21, 2017, the Hercules Term Loan was paid in full and the Company was not required to pay the 1% prepayment charge due pursuant to the terms of the loan. A loss on extinguishment of $0.5 million from the payoff of the Hercules Term Loan was recognized in the consolidated statement of operations and comprehensive income during the year ended December 31, 2017.

In connection with the Hercules Term Loan, the Company issued unregistered warrants that entitle Hercules to purchase up to an aggregate of 9,063 unregistered shares of XOMA common stock at an exercise price equal to $66.20 per share. These warrants were exercisable immediately and have a five-year term expiring in February 2020. As of December 31, 2018, all of these warrants were outstanding.

Interest Expense

Amortization of debt issuance costs and discounts are included in interest expense. Interest expense in the consolidated statements of operations and comprehensive (loss) income for the years ended December 31, 2018 and 2017, relates to the following debt instruments (in thousands):

	Year Ended December 31,	
	2018	2017
Novartis note	$627	$490
SVB loan	258	—
Servier loan	—	431
Hercules loan	—	311
Other	37	6
Total interest expense	$922	$1,238

10. Income Taxes

The Company has $0.1 million income tax benefit for the year ended December 31, 2018 related to prior year return to provision adjustment and $1.7 million of income tax expense for the year ended December 31, 2017. The Company is subject to an ownership change pursuant to IRC Section 382 that occurred in February 2017, which significantly limited its ability to use its net operating loss carryforwards and tax credits against its 2017 taxable income.

The provision (benefit) for income taxes (all current) consists of the following (in thousands):

	Year Ended December 31,	
	2018	2017
Federal	$(97)	$1,649
State	(1)	13
Total	$(98)	$1,662

Reconciliation between the tax provision computed at the federal statutory income tax rate and the Company's actual effective income tax rate is as follows:

	Year Ended December 31,	
	2018	2017
Federal tax at statutory rate	21 %	34 %
Stock compensation and other permanent differences	2 %	6 %
Tax credits	1 %	(4)%
Impact of 2017 Tax Act on change in deferred	— %	128 %
Section 382 limitations	— %	868 %
Valuation allowance	(23)%	(1,022)%
Total	1 %	10 %

The significant components of net deferred tax assets at December 31, 2018 and 2017 were as follows (in thousands):

	December 31,	
	2018	2017
Capitalized research and development expenses	$21,979	$26,367
Net operating loss carryforwards	12,901	4,701
Research and development and other tax credit carryforwards	12,343	12,225
Stock compensation	4,732	3,680
Deferred revenue	4,100	3,928
Other	1,483	883
Total deferred tax assets	57,538	51,784
Valuation allowance	(57,538)	(51,784)
Net deferred tax assets	$—	$—

The net increase (decrease) in the valuation allowance was $5.8 million and $(166.1) million, for the years ended December 31, 2018 and 2017, respectively.

Accounting standards provide for the recognition of deferred tax assets if realization of such assets is more likely than not. Based upon the weight of available evidence, which includes the Company's four sources of taxable income including historical operating performance and the repeal of net operating loss carryback, the Company has determined that total deferred tax assets should be fully offset by a valuation allowance.

On December 22, 2017, the Tax Cuts and Jobs Act of 2017 (the "Tax Act") was signed into law making significant changes to the Internal Revenue Code. Changes include, but are not limited to, a corporate tax rate decrease from 35% to 21% effective for tax years beginning after December 31, 2017. At December 31, 2017, the Company recorded tax related disclosures for the impact of the Tax Act effects using the current available information and technical guidance on the interpretations of the Tax Act. As permitted by the U.S. Securities and Exchange Commission Staff Accounting Bulletin No. 118 ("SAB 118"), the Company has completed its accounting analysis based on the guidance, interpretations, and data available as of December 31, 2018. No financial statement adjustment was made in the fourth quarter of 2018 upon finalization of our accounting analysis.

Based on an analysis under Section 382 of the Internal Revenue Code (which subjects the amount of pre-change Net Operating Losses ("NOLs") and certain other pre-change tax attributes that can be utilized to annual limitations), the Company experienced an ownership change in February 2017 which substantially limits the future use of its pre-change "NOLs and certain other pre-change tax attributes per year. The Company has excluded the related tax attributes that will expire as a result of the annual limitations in the deferred tax assets as of December 31, 2017 and December 31, 2018. To the extent that the Company does not utilize its carry-forwards within the applicable statutory carryforward periods, either because of Section 382 limitations or the lack of sufficient taxable income, the carryforwards will expire unused.

As of December 31, 2018, the Company had federal net operating loss carry-forwards of approximately $48.8 million and state net operating loss carry-forwards of approximately $39.1 million to offset future taxable income. The net operating loss carryforwards begin to expire in 2036 for federal and 2033 for state purposes. The Company had federal orphan credit of $1.2 million which if not utilized will expire in 2037. The Company also had $19.8 million of California research and development tax credits which have no expiration date.

Under the Tax Act, although the treatment of tax losses generated in taxable years ending before December 31, 2017 has generally not changed, tax losses generated in taxable years beginning after December 31, 2017 can be carried forward indefinitely but may only be utilized to offset 80% of taxable income annually.

The Company files income tax returns in the U.S. federal jurisdiction, California, Maryland and Texas. The Company’s federal income tax returns for tax years 2015 and beyond remain subject to examination by the Internal Revenue Service. The Company’s state income tax returns for tax years 2014 and beyond remain subject to examination by state tax authorities. In addition, all of the net operating losses and research and development credit carry-forwards that may be used in future years are still subject to adjustment.

The following table summarizes the Company's activity related to its unrecognized tax benefits (in thousands):

	Year Ended December 31,	
	2018	2017
Balance at January 1	$5,501	$8,625
Increase related to current year tax position	—	581
Increase (decrease) related to prior year tax position	16	(3,705)
Balance at December 31	$5,517	$5,501

As of December 31, 2018, the Company had a total of $4.5 million of net unrecognized tax benefits, none of which would affect the effective tax rate upon realization. The Company currently has a full valuation allowance against its U.S. net deferred tax assets which would impact the timing of the effective tax rate benefit should any of these uncertain tax positions be favorably settled in the future.

The Company does not expect its unrecognized tax benefits to change significantly over the next twelve months. The Company will recognize interest and penalties accrued on any unrecognized tax benefits as a component of income tax expense. Through December 31, 2018, the Company has not accrued interest or penalties related to uncertain tax positions.

11. Compensation and Other Benefit Plans

The Company grants qualified and non-qualified stock options, RSUs, common stock and other stock-based awards under various plans to directors, officers, employees and other individuals. Stock options are granted at exercise prices of not less than the fair market value of the Company's common stock on the date of grant. Additionally, the Company has an Employee Stock Purchase Plan ("ESPP") that allows employees to purchase Company shares at a purchase price equal to 85% of the lower of the fair market value of the Company's common stock on the first trading day of the offering period or on the last day of the offering period.

Employee Stock Purchase Plan

In May 2015, the Company's stockholders approved the 2015 Employee Stock Purchase Plan (the "2015 ESPP") which replaced the Company's legacy 1998 ESPP. Under the 2015 ESPP, the Company reserved 15,000 shares of common stock for issuance as of its effective date of July 1, 2015, subject to adjustment in the event of a stock split, stock dividend, combination or reclassification or similar event. The 2015 ESPP allows eligible employees to purchase shares of the Company's common stock at a discount through payroll deductions of up to 10% of their eligible compensation, subject to any plan limitations. The 2015 ESPP provides for six-month offering periods ending on May 31 and November 30 of each year, with the exception of the first offering period, which ran from July 1, 2015 through November 30, 2015, as the Company transitioned from the 1998 ESPP. At the end of each offering period, employees are able to purchase shares at 85% of the lower of the fair market value of the Company's common stock on the first trading day of the offering period or on the last day of the offering period.

In February 2017, the Compensation Committee and the Board of Directors adopted, and in May 2017, the Company's stockholders approved, an amendment to the Company's 2015 ESPP. The amendment (a) increased by 250,000 the shares of common stock (from 15,000 shares to a total of 265,000 shares) available for issuance under the 2015 ESPP; and (b) increased the maximum number of shares of common stock an employee may purchase in any offering period to 2,500.

During the years ended December 31, 2018 and 2017, employees purchased 2,948 and 5,314 shares of common stock, respectively, under the 2015 ESPP.

Deferred Savings Plan

Under section 401(k) of the Internal Revenue Code of 1986, the Board of Directors adopted, effective June 1, 1987, a tax-qualified deferred compensation plan for employees of the Company. Participants may make contributions which defer up to 50% of their eligible compensation per payroll period, up to a maximum for 2018 of $18,500 (or $24,500 for employees over 50 years of age) and for 2017 of $18,000 (or $24,000 for employees over 50 years of age). The Company may, at its sole discretion, make contributions each plan year, in cash or in shares of the Company's common stock, in amounts which match up to 50% of the salary deferred by the participants. The expense related to these contributions was $0.1 million for the year ended December 31, 2018, and 100% was paid in common stock for the year. The Company applies shares from plan forfeitures of terminated employees toward the Company's matching contribution. For the year ended December 31, 2017, the forfeitures exceeded the total matching contribution from the Company. Therefore, no expense was recognized by the Company.

Stock Option Plans

In May 2010, the Compensation Committee and the full Board adopted, and in July 2010 the Company's stockholders approved, a new equity-based compensation plan, the 2010 Long Term Incentive and Share Award Plan, which has since been amended and restated as the Amended and Restated 2010 Long Term Incentive and Stock Award Plan (the

"2010 Plan"). The 2010 Plan replaced the Company's legacy Option Plan, Restricted Plan and 1992 Directors Share Option Plan (the "Directors Plan") and provided a more current set of terms under which to provide this type of compensation.

In February 2016, the Compensation Committee and the Board of Directors adopted, and in May 2016, the Company's stock holders approved an amendment to the 2010 Plan to, among other things, allow for an increase in the number of shares of common stock reserved for issuance by 170,000 shares to an aggregate of 1,108,560 shares.

In February 2017, the Compensation Committee and the Board of Directors adopted, and in May 2017, the Company's stockholders approved, an amendment to the 2010 Plan. The amendment (a) increases the number of shares of common stock issuable over the term of the plan by an additional 1,470,502 to 2,579,062 shares in the aggregate; (b) increases the number of shares of common stock issuable under the plan as incentive stock options by an additional 2,004,087 to 2,579,062 shares; (c) increases the per person award limits for purposes of compliance with Section 162(m) of the Internal Revenue Code to 2,000,000 shares for options and stock appreciation rights and to 2,000,000 shares for other types of stock awards; and (d) for purposes of Section 162(m) (i) confirms existing performance criteria upon which performance goals may be based with respect to performance awards under the 2010 Plan, and (ii) confirms existing means of adjustment when calculating the attainment of performance goals for performance awards granted under the 2010 Plan.

From the 2010 Plan, the Company grants stock options, RSUs, and other stock-based awards to eligible employees, consultants and directors. No further grants or awards will be made under the Option Plan, the Restricted Share Plan or the Directors Plan. Shares underlying options previously issued under the Option Plan, the Restricted Share Plan or the Directors Plan that are currently outstanding will, upon forfeiture, cancellation, surrender or other termination, become available under the 2010 Plan. Stock-based awards granted under the 2010 Plan may be exercised when vested and generally expire ten years from the date of the grant or three to six months from the date of termination of employment (longer in case of death or certain retirements).

As of December 31, 2018, the Company had 341,540 shares available for grant under the stock option plan. As of December 31, 2018, options and RSUs covering 1,627,591 shares of common stock were outstanding under the stock option plan.

Stock Options

Stock options generally vest monthly over three to four years for employees and one year for directors. Stock options held by employees who qualify for retirement age (defined as employees that are a minimum of 55 years of age and the sum of their age plus years of full-time employment with the Company exceeds 70 years) vest on the earlier of scheduled vest date or the date of retirement.

Performance-Based Stock Options

In February 2017, the Board of Directors approved a grant of 1,018,000 stock options to members of the Board of Directors, executives, and non-executive employees, subject to approval by the Company's stockholders of an increase in the available shares under the 2010 Plan at the 2017 Annual Meeting of Stockholders. In May 2017, the shareholders approved the increase in the number of shares available for issuance under the Company's 2010 Plan and 998,000 stock options were issued upon approval. As such, the stock options approved for grant in February 2017 were not deemed granted for accounting purposes until May 2017. The stock options granted to the non-employee board members and non-executive employees vest monthly over three years from the grant date. The stock options granted to the executives contain a combination of time-based and corporate performance-based vesting conditions.

Stock-based compensation expense associated with the corporate performance-based stock options is recognized if the performance condition is considered probable of achievement using management's best estimates. For the year ended December 31, 2018, certain corporate-based milestones were achieved for 41,250 shares and therefore the related expense of $0.2 million was recognized during the year. As of December 31, 2018, the Company had 41,250 shares remaining related to outstanding performance-based stock options with a grant date fair value of $0.2 million. The options are subject to vesting in 2019 based solely on the achievement of fiscal year 2019 corporate goals as set by the Compensation Committee of the Company's Board of Directors.

In December 2017, the Company granted 130,000 stock options to executives with corporate performance-based vesting conditions. During the three months ended March 31, 2018, the Board of Directors approved a modification of 80,000 of these options from performance-based vesting to service-based vesting. The remaining 50,000 stock options were cancelled in conjunction with an executive's resignation.

Stock Option Plans Summary

The following table summarizes the Company's stock option activity for the year ended December 31, 2018:

	Number of shares	Weighted Average Exercise Price Per Share	Weighted Average Contractual Term (in years)	Aggregate Intrinsic Value (in thousands)
Outstanding at beginning of year	1,622,065	$ 24.54		
Granted	305,708	27.09		
Exercised	(68,093)	5.39		
Forfeited, expired or cancelled	(234,934)	43.46		
Outstanding at end of period	1,624,746	$ 23.09	7.5	$ 8,104
Exercisable at end of period	1,102,036	$ 26.01	7.0	$ 6,089

The aggregate intrinsic value of stock options exercised in 2018 and 2017 was $1.1 million and $2.4 million, respectively. The weighted-average grant-date fair value per share of the options granted in 2018 and 2017 was $18.25 and $10.26, respectively.

As of December 31, 2018, $5.0 million of total unrecognized compensation expense related to stock options is expected to be recognized over a weighted average period of 1.8 years.

Restricted Stock Units

RSUs generally vest over three years for employees and one year for directors. RSUs held by employees who qualify for retirement age (defined as employees that are a minimum of 55 years of age and the sum of their age plus years of full-time employment with the Company exceeds 70 years) vest on the earlier of scheduled vest date or the date of retirement. The valuation of RSUs is determined at the date of grant using the closing stock price.

Unvested RSU activity for the year ended December 31, 2018 is summarized below:

Restricted Stock Units:	Number of Shares	Weighted-Average Grant-Date Fair Value
Unvested balance at January 1, 2018	18,480	$ 18.00
Vested	(18,047)	18.27
Unvested balance at December 31, 2018	433	$ 7.01

The total grant-date fair value of RSUs that vested in 2018 and 2017, was $0.3 million and $2.3 million, respectively. As of December 31, 2018, $2,400 of total unrecognized compensation expense related to employee RSUs was expected to be recognized over a weighted average period of 0.8 years.

Stock-based Compensation Expense

The fair value of stock options granted during the years ended December 31, 2018 and 2017, was estimated based on the following weighted average assumptions for:

	Year Ended December 31,	
	2018	2017
Dividend yield	0 %	0 %
Expected volatility	101 %	100 %
Risk-free interest rate	2.72 %	1.90 %
Expected term	5.60 years	5.55 years

The following table shows total stock-based compensation expense for stock options, RSUs and ESPP in the consolidated statements of operations and comprehensive (loss) income (in thousands):

	Year Ended December 31,	
	2018	2017

Research and development	$369	$876
General and administrative	3,533	6,425
Total stock-based compensation expense	$3,902	$7,301

12. Net (Loss) Income Per Share Available to Common Stockholders

Potentially dilutive securities are excluded from the calculation of diluted net (loss) income per share available to common stockholders if their inclusion is anti-dilutive.

The following table shows the weighted-average outstanding securities considered anti-dilutive and therefore excluded from the computation of diluted net (loss) income per share available to common stockholders (in thousands):

	Year Ended December 31,	
	2018	2017
Convertible preferred stock	5,048	4,372
Common stock options and RSUs	1,639	346
Warrants for common stock	21	100
Total	6,708	4,818

The following is a reconciliation of the numerator (net income or loss) and denominator (number of shares) used in the calculation of basic and diluted net (loss) income per share available to common stockholders (in thousands):

	Year Ended December 31,	
	2018	2017
Numerator		
Net (loss) income	$(13,343)	$14,596
Less: Deemed dividend on convertible preferred stock	—	(5,603)
Less: Allocation of undistributed earnings to participating securities	—	(3,279)
Net (loss) income available to common stockholders, basic	$(13,343)	$5,714
Adjustments to undistributed earnings allocated to participating securities	—	96
Net (loss) income available to common stockholders, diluted	$(13,343)	$5,810
Denominator		
Weighted average shares used in computing basic net (loss) income per share available to common stockholders	8,373	7,619
Effect of dilutive stock options	—	360
Effect of dilutive warrants	—	1
Weighted average shares used in computing diluted net (loss) income per share available to common stockholders	8,373	7,980
Basic net (loss) income per share of common stock	$(1.59)	$0.75

Diluted net (loss) income per share of common stock	$(1.59)	$0.73

13. Capital Stock

Convertible Preferred Stock

Rights Offering 2018

On November 19, 2018, the Company initiated a rights offering to raise $20.0 million through the distribution of subscription rights to holders of its common stock and Series X preferred stock (the “Rights Offering”). In December 2018, the Company sold a total of 285,689 shares of common stock and 1,252.772 shares of Series Y preferred stock under the Rights Offering for aggregate gross proceeds of $20.0 million. Total offering costs of $0.3 million were offset against the proceeds from the sale of common stock and preferred stock, for total net proceeds of $19.7 million.

All Series Y convertible preferred shares were issued to Biotechnology Value Fund, L.P. (“BVF”). One of the Company’s Directors, Matthew Perry, is the President of BVF. Each share of Series Y convertible preferred stock has a stated value of $13,000 per share and is convertible into 1,000 shares of registered common stock based on a conversion price of $13.00 per share of common stock. The total number of shares of common stock issued upon conversion of all issued Series Y convertible preferred stock will be 1,252,772 shares. Each share is convertible at the option of the holder at any time, provided that the holder will be prohibited from converting into common stock if, as a result of such conversion, the holder, together with its affiliates, would beneficially own a number of shares above a conversion blocker, which is initially set at 19.99% of the total common stock then issued and outstanding immediately following the conversion of such shares. As of December 31, 2018, BVF owned approximately 20.07% of the Company’s total outstanding shares, and if all of the Series X and Series Y convertible preferred shares were converted, BVF would own 53.5% of the Company’s total outstanding common shares. As of December 31, 2018, none of the preferred stock has been converted into shares of the Company’s common stock.

Biotechnology Value Fund Financing 2017

In February 2017, the Company sold 1,200,000 shares of its common stock and 5,003 shares of Series X convertible preferred stock directly to BVF in a registered direct offering, for aggregate net cash proceeds of $24.8 million.

BVF purchased the shares of common stock from the Company at a price of $4.03 per share, the closing stock price on the date of purchase. Each share of Series X convertible preferred stock has a stated value of $4,030 per share and is convertible into 1,000 shares of registered common stock based on a conversion price of $4.03 per share of common stock. The total number of shares of common stock issued upon conversion of all issued Series X convertible preferred stock will be 5,003,000 shares. Each share is convertible at the option of the holder at any time, provided that the holder will be prohibited from converting into common stock if, as a result of such conversion, the holder, together with its affiliates, would beneficially own a number of shares above a conversion blocker, which is initially set at 19.99% of the total common stock then issued and outstanding immediately following the conversion of such shares.

Preferred Stock

The Series X and Series Y convertible preferred stock have the following characteristics, which are set forth in Certificates of Designation of Preferences, Rights and Limitations filed with the Delaware Secretary of State.

Dividends— Holders of convertible preferred stock are entitled to receive dividends on shares of convertible preferred stock equal (on an as if converted to common stock basis) to and in the same form as dividends actually paid on the Company’s common stock.

Liquidation Rights— In the event of the Company's liquidation, dissolution or winding up, holders of convertible preferred stock will participate, on a pro-rata basis, with any distribution of proceeds to holders of common stock.

Conversion— Each share of Series X and Series Y is convertible into 1,000 shares of registered common stock based on a conversion price of $4.03 per share and $13.00 per share of common stock, respectively.

Voting Rights— Convertible preferred stock will generally have no voting rights, except as required by law and except that the consent of the holders of the outstanding convertible preferred stock will be required to amend the terms and to issue additional shares of the preferred stock.

Classification— The Company evaluated the convertible preferred stock for liability or equity classification under the applicable accounting guidance and determined that equity treatment was appropriate because the convertible preferred stock did not meet the definition of the liability instruments defined thereunder for convertible instruments. Specifically, the convertible preferred shares are not mandatorily redeemable and do not embody an obligation to buy back the shares outside of the Company's control in a manner that could require the transfer of assets. Additionally, the Company determined that the convertible preferred stock would be recorded as permanent equity, not temporary equity, given that they are not redeemable for cash or other assets (i) on a fixed or determinable date, (ii) at the option of the holder, and (iii) upon the occurrence of an event that is not solely within control of the Company. The Company has also evaluated the embedded conversion and contingent redemption features within the convertible preferred stock in accordance with the accounting guidance for derivatives and determined that bifurcation is not required for any embedded feature.

Beneficial Conversion Feature— The fair value of the common stock into which the Series X convertible preferred stock is convertible exceeded the allocated purchase price of the Series X convertible preferred stock by $5.6 million on the date of issuance, as such the Company recorded a deemed dividend. The Company recognized the resulting beneficial conversion feature as a deemed dividend equal to the number of shares of Series X convertible preferred stock sold on February 16, 2017 multiplied by the difference between the fair value of the common stock and the Series X convertible preferred stock effective conversion price per share on that date. The dividend was reflected as a one-time, non-cash, deemed dividend to the holders of Series X convertible preferred stock on the date of issuance, which is the date the stock first became convertible. There was no beneficial conversion feature associated with the issuance of Series Y convertible preferred stock.

2018 ATM Agreement

On December 18, 2018, the Company entered into an At The Market Issuance Sales Agreement (the "2018 ATM Agreement") with H.C. Wainwright & Co., LLC ("HCW"), under which the Company may offer and sell from time to time at its sole discretion shares of its common stock through HCW as its sales agent, in an aggregate amount not to exceed $30.0 million. HCW may sell the shares by any method permitted by law deemed to be an "at the market" offering as defined in Rule 415 of the Securities Act, and will use its commercially reasonable efforts consistent with its normal trading and sales practices to sell the shares up to the amount specified. The Company will pay HCW a commission of 3% of the gross proceeds of any shares of common stock sold under the 2018 ATM Agreement. For the year ended December 31, 2018, the Company has not sold any shares of common stock under the 2018 ATM Agreement.

2015 ATM Agreement

On November 12, 2015, the Company entered into an At Market Issuance Sales Agreement (the "2015 ATM Agreement") with Cowen and Company, LLC ("Cowen"), under which the Company may offer and sell from time to time at its sole discretion shares of its common stock through Cowen as its sales agent, in an aggregate amount not to exceed $75 million. Cowen may sell the shares by any method permitted by law deemed to be an "at the market" offering as defined in Rule 415 of the Securities Act, including without limitation sales made directly on The Nasdaq Global Market, and also may sell the shares in privately negotiated transactions, subject to the Company's prior approval. The Company will pay Cowen a commission equal to 3% of the gross proceeds of the sales price of all shares sold through it as sales agent under the 2015 ATM Agreement. For the year ended December 31, 2018, the Company sold a total of 67,658 shares of common stock under the 2015 ATM Agreement for aggregate gross proceeds of $2.4 million. Total offering costs of $0.1 million were offset against the proceeds upon the sale of common stock. For the year ended December 31, 2017, the Company sold a total of 110,252 shares of common stock under the 2015 ATM Agreement for aggregate gross proceeds of $0.6 million. Total offering costs of $0.2 million were offset against the proceeds upon sale of common stock. The shares subject to 2015 ATM Agreement were

registered on the shelf registration statement on Form S-3 that expired in February 2018.

Common Stock Purchase Agreement

In August 2017, in connection with the XOMA-052 License Agreement, the Company and Novartis entered into a Common Stock Purchase Agreement under which Novartis purchased 539,131 shares of the Company's common stock, at a price per share of $9.2742 for the aggregate purchase price of $5.0 million in cash. The fair market value of the common stock issued to Novartis AG was $4.8 million, based on the closing stock price of $8.93 per share on the effective date of the Common Stock Purchase Agreement, or August 24, 2017. The excess of the purchase price over the fair market value of the common stock represents a premium of $0.2 million which was accounted for as additional consideration to the license agreements (see Note 4 for further discussion). The shares issued to Novartis are unregistered securities and the Company agreed to use commercially reasonable efforts to make and keep public information available and timely file all reports and other documents with the SEC as required of the Company under the Securities Exchange Act of 1934, as amended. Under the Common Stock Purchase Agreement, upon a request by Novartis, the Company will use commercially reasonable efforts to register the shares for resale under the Securities Act on a registration statement on Form S-3, to be filed within 60 days of the written request, and will use commercially reasonable efforts to keep such registration statement

continuously effective under the Securities Act until the date all of the shares of common stock covered by such registration statement have been sold or can be sold publicly without restriction or limitation under Rule 144.

Common Stock Warrants

As of December 31, 2018 and 2017, the following common stock warrants were outstanding:

Issuance Date	Expiration Date	Balance Sheet Classification	Exercise Price per Share	December 31, 2018	December 31, 2017
February 2015	February 2020	Stockholders' equity	$ 66.20	9,063	9,063
February 2016	February 2021	Stockholders' equity	$ 15.40	8,249	8,249
May 2018	May 2028	Stockholders' equity	$ 23.69	6,332	—
				23,644	17,312

In February 2015, the Company issued Hercules five-year warrants in connection with the Hercules Term Loan (see Note 8) that entitle Hercules to purchase up to an aggregate of 9,063 unregistered shares of the Company’s common stock at an exercise price equal to $66.20 per share. The warrants are classified in stockholders’ equity on the consolidated balance sheets. As of December 31, 2018, all of these warrants were outstanding.

In February 2016, in conjunction with services provided by a third-party consultant, the Company issued a warrant to purchase up to an aggregate of 8,249 unregistered shares of the Company’s common stock at an exercise price equal to $15.40 per share. These warrants were exercisable immediately and have a five-year term expiring in February 2021. The estimated fair value of the warrants of $0.1 million was calculated using the Black-Scholes Model and was classified in stockholders’ equity on the consolidated balance sheet. As of December 31, 2018, all of these warrants were outstanding

In May 2018, the Company issued SVB a warrant in connection with the SVB Loan Agreement (see Note 9) which is exercisable in whole or in part for up to an aggregate of 6,332 shares of common stock with an exercise price of $23.69 per share. The warrant may be exercised on a cashless basis and is exercisable within 10 years from the date of issuance or upon the consummation of certain acquisitions of the Company. The fair value of the warrant issued to SVB was determined using the Black-Scholes Model and was estimated to be $0.1 million. The warrants are classified in stockholders’ equity on the consolidated balance sheets. As of December 31, 2018, all of these warrants were outstanding.

14. Commitments and Contingencies

Collaborative Agreements, Royalties and Milestone Payments

The Company has committed to make potential future milestone payments to third parties as part of licensing and development programs. Payments under these agreements become due and payable only upon the achievement of certain developmental, regulatory and commercial milestones by the Company’s licensees. Because it is uncertain if and when these milestones will be achieved, such contingencies, aggregating up to $7.5 million (assuming one product per contract meets all milestones events) have not been recorded on the accompanying consolidated balance sheets. The Company is unable to determine precisely when and if payment obligations under the agreements will

become due as these obligations are based on milestone events, the achievement of which is subject to a significant number of risks and uncertainties.

Operating Leases

The Company leases two facilities in Berkeley, California and office equipment under operating leases expiring on various dates through April 2023. These leases require the Company to pay taxes, insurance, maintenance and minimum lease payments.

In September 2017, the Company entered into a third lease agreement for an office facility in Emeryville, California. The lease has a term of 63 months and commenced on November 14, 2017. Under the lease agreement the Company will make total lease payments of $0.8 million through February 2023.

Total rental expense, including other costs required under the Company's leases, was approximately $2.1 million and $2.4 million for the years ended December 31, 2018 and 2017, respectively. Rental expense based on leases allowing for escalated rent payments are recognized on a straight-line basis. At the expiration of the lease, the Company is required to restore certain of its leased property to certain conditions in place at the time of lease inception.

On November 21, 2017, the Company entered into a non-cancellable sublease agreement for a portion of one of its three leased facilities. The term of the sublease agreement commenced on December 26, 2017. Under the term of the sublease agreement, the Company will receive $5.1 million in base lease payments plus reimbursement of certain operating expenses over the term of the sublease, which ends at the same time as the original lease in April 2023. Under the sublease agreement, the Company's future sublease income will be equal to the amount required to be paid to the Company's landlord. In addition, the sublease provides for a tenant improvement allowance of $0.8 million to the subtenant, which was funded by the Company in January 2018. Upon execution of the sublease agreement, the Company recognized a loss on the sublease equal to the tenant improvement allowance. Under the sublease agreement, the sub-lessee executed a standby letter of credit naming the Company as the beneficiary amounting to $1.0 million as security under the sublease in the event of uncured default by the sub-lessee. As of December 31, 2018, the Company has not drawn any funds from the letter of credit as there was no default by the sub-lessee. During the year ended December 31, 2018, the Company recognized $1.5 million of sublease income under this agreement.

On April 14, 2018, the Company entered into a non-cancellable sublease agreement for a portion of one of its three leased facilities. The term of the sublease agreement commenced on May 1, 2018. Under the term of the sublease agreement, the Company will receive $1.1 million in base lease payments plus reimbursement of certain operating expenses over the term of the sublease, which ends at the same time as the original lease in April 2023. Under the sublease agreement, the Company's future sublease income is less than the amount required to be paid to the Company's landlord. In addition, the sublease provides for a tenant improvement allowance of $65,000 to the subtenant, and payment of broker commissions of $89,000. Upon execution of the sublease agreement, the Company recognized a loss on the sublease of $0.6 million, which was recorded in the restructuring charges line item of the consolidated statements of operations and comprehensive loss. During the year ended December 31, 2018, the Company recognized $0.3 million of sublease income under this agreement.

In October 2018, the Company entered into a non-cancellable sublease agreement for a portion of one of its three leased facilities. The term of the sublease agreement commenced on October 24, 2018. Under the term of the sublease agreement, the Company will receive $1.7 million in base lease payments over the term of the sublease, which ends at the same time as the original lease in May 2021. Under the sublease agreement, the Company's future sublease income is less than the amount required to be paid to the Company's landlord. In addition, the sublease provides for payment of broker commissions of $137,000. As the sublease agreement was executed after the Company met the criteria of a cease-use date for the leased faciality, the Company did not recognize a loss on the sublease. Instead, the Company remeasured the lease-related restructuring liability based on actual sublease income from the sublease agreement (see Note 8) and the resulting adjustment was recorded in the restructuring charges line item of the consolidated statements of operations and comprehensive loss.

The Company estimates future minimum lease amounts (in thousands):

Year Ending December 31,	Rent Payments	Sublease income[1]
2019	4,381	2,249
2020	3,923	2,376
2021	3,156	2,006
2022	2,611	1,746
2023	854	592
Thereafter	—	—

Total minimum lease payments	$ 14,925	$ 8,969

(1) Sublease income includes base lease payments and expected reimbursement of certain operating expenses under executed sublease agreements as of December 31, 2018.

15. Concentration of Risk, Segment and Geographic Information

Concentration of Risk

Cash equivalents and receivables are financial instruments which potentially subject the Company to concentrations of credit risk, as well as liquidity risk for certain cash equivalents such as money market funds. As of December 31, 2018, the Company had no cash equivalents. As of December 31, 2017, cash equivalents consist of money market funds which were held by major financial institutions which management believes are of high credit quality. The Company has not encountered any such liquidity issues during 2018 and 2017.

The Company has not experienced any significant credit losses and does not require collateral on receivables. For the year ended December 31, 2018, three partners represented 34%, 25%, and 14% of total revenues, and as of December 31, 2018, two partners represented 67% and 28% of the accounts receivable balance.

For the year ended December 31, 2017, one partner represented 95% of total revenues, and as of December 31, 2017, one partner represented 100% of the accounts receivable balance.

Segment Information

The Company has determined that it operates in one business segment as it only reports operating results on an aggregate basis to the chief operating decision maker of the Company.

Geographic Information

Revenue attributed to the following geographic regions was as follows (in thousands) based on the location of the licensees:

	Year Ended December 31,	
	2018	2017
United States	$3,935	$1,654
Europe	1,014	50,936
Asia Pacific	350	100
Total	$5,299	$52,690

The Company’s property and equipment is held in the United States.

16. Subsequent Event

Appointment of New Director

Effective January 1, 2019, the Company's Board of Directors (the "Board") elected Barbara Kosacz, J.D., a partner of Cooley, LLP ("Cooley") and the international head of its life sciences practice, to the Board. Cooley serves as the Company's outside legal counsel. During the years ended December 31, 2018 and 2017, the Company paid Cooley an aggregate of $0.7 million and $1.5 million, respectively; these amounts are substantially less than five percent of Cooley's gross revenues for the related fiscal years.

Rezolute

On January 7, 2019, the Company and Rezolute further amended the license agreement and common stock purchase agreement. The license agreement was amended to eliminate the requirement that equity securities be issued to XOMA upon the closing of the Qualified Financing (as defined in the license agreement) and to replace it with a requirement that Rezolute: (1) make five cash payments to XOMA totaling $8.5 million following the closing of a Qualified Financing on or before specified staggered future dates (the "Future Cash Payments"); and (2) provide for early payment of the Future Cash Payments (only until the above referenced $8.5 million is reached) by making cash payments to XOMA equal to 15% of the net proceeds of each future financing following the closing of the Qualified Financing, with such payments to be credited against any remaining unpaid Future Cash Payments in reverse order of their future payment date. In accordance with the terms of the license agreement, XOMA will receive $5.5 million in cash upon the closing of the Qualified Financing which is additional to the amounts referenced directly above.

In addition, the license agreement amendment revised the amount Rezolute is required to expend on development of RZ358 and related licensed products and revised provisions with respect to Rezolute's diligence efforts in conducting clinical studies. Lastly, the common stock purchase agreement was amended to remove certain provisions related to the issuance of equity to XOMA in accordance with the new provisions regarding the Future Cash Payments in the license agreement.

Sublease

In January 2019, the Company entered into a non-cancellable sublease agreement for a portion of one of its three leased facilities. The term of the sublease agreement commenced on January 18, 2019. Under the term of the sublease agreement, the Company will receive $1.7 million over the term of the sublease, which ends at the same time as the original lease in April 2023.

Bioasis Royalty Purchase Agreement

On February 25, 2019, the Company entered into a Royalty Purchase Agreement with Bioasis Technologies Inc. and certain affiliates (collectively “Bioasis”). Under the agreement, the Company purchased potential future milestone, royalty and option fee payment rights from Bioasis for product candidates that are being developed pursuant to a License Agreement between Bioasis and Prothena Biosciences Limited. Under the terms of the agreement, the Company paid Bioasis an undisclosed upfront cash payment and will make potential future cash payments to Bioasis as the licensed product candidates reach certain development milestones. In addition, the Company was granted an option to purchase a 1% royalty right on the next two license agreements entered into between Bioasis and third-party licensees subject to certain payments and conditions as well as a right of first negotiation on subsequent Bioasis license agreements with third parties.

SVB Loan Agreement

On March 4, 2019, the Company and SVB amended the Loan Agreement entered into on May 7, 2018. The Loan Agreement was amended to extend the Draw Period from March 31, 2019 to March 31, 2020. In connection with the amendment, the Company issued a second warrant to SVB which is exercisable in whole or in part for up to an aggregate of 4,845 shares of common stock with an exercise price of $14.71 per share. The warrant may be exercised on a cashless basis and is exercisable within 10 years from the date of issuance or upon the consummation of certain acquisitions of the Company.

17. Quarterly Financial Information (unaudited)

The following is a summary of the quarterly results of operations for the years ended December 31, 2018 and 2017:

	Consolidated Statements of Operations Data Quarter Ended			
	March 31	June 30	September 30	December 31
	(In thousands, except per share amounts)			
2018				
Total revenues[1]	$463	$2,255	$ 896	$ 1,685
Restructuring (charge) credit	—	(459)	(909)	(543)
Operating costs and expenses	(5,600)	(4,787)	(5,294)	(4,564)
Loss from operations	(5,137)	(2,991)	(5,307)	(3,422)
Other income, net	1,331	1,044	729	312
Net loss before income tax	(3,806)	(1,947)	(4,578)	(3,110)
Income tax benefit	—	—	—	98
Net loss	$(3,806)	$(1,947)	$ (4,578)	$ (3,012)
Basic net loss per share available to common stockholders	$(0.46)	$(0.23)	$ (0.55)	$ (0.35)
Diluted net loss per share available to common stockholders	$(0.46)	$(0.23)	$ (0.55)	$ (0.35)
2017				
Total revenues[2]	$260	$10,890	$ 36,183	$ 5,357
Restructuring (charge) credit	(2,020)	(1,460)	29	4
Operating costs and expenses	(9,160)	(8,119)	(7,562)	(7,371)
(Loss) income from operations	(10,920)	1,311	28,650	(2,010)
Other income (expense), net	205	(1,026)	(600)	648
Net (loss) income before income tax	(10,715)	285	28,050	(1,362)
Income tax (expense) benefit	—	—	(1,706)	44
Net (loss) income	$(10,715)	$285	$ 26,344	$ (1,318)
Basic net (loss) income per share available to common stockholders	$(2.37)	$0.02	$ 2.06	$ (0.16)
Diluted net (loss) income per share available to common stockholders[3]	$(2.37)	$0.02	$ 1.98	$ (0.16)

(1) Total revenues include upfront fees, milestone payments and royalties relating to various out-licensing arrangements, which includes $1.8 million of revenue recognized in the second quarter of 2018 under the license agreement and common stock purchase agreement with Rezolute, and $0.8 million in milestone revenue earned in the fourth quarter of 2018 under our license agreement with Janssen Biotech, Inc.

(2) In the third quarter of 2017, total revenues include upfront and milestone payments relating to various out-licensing arrangements, including $35.4 million of license fee revenue recognized in connection with the license agreements with Novartis, and, in the second quarter of 2017, total revenues include a $10.0 million milestone earned under the license agreement with Novartis International.

(3) For the quarters ended June 30, 2017 and September 30, 2017, the Company’s diluted net income per share of common stock was computed by giving effect to all potentially dilutive common stock equivalents outstanding during each of these periods.

F-39