XOMA Corp
Form 10-K
March 16, 2017

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, 2016

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 No. 0-14710

XOMA CORPORATION

(Exact name of registrant as specified in its charter)

Delaware	52-2154066
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
2910 Seventh Street, Berkeley, California 94710	
(Address of principal executive offices, including zip code)	(Telephone number)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Name of each exchange on which registered
Common Stock, $0.0075 par value	The NASDAQ Stock Market, LLC
Preferred Stock Purchase Rights	

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 and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K 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 or a smaller reporting company. See definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large Accelerated Filer	Accelerated Filer
Non-Accelerated Filer	Smaller reporting company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act of 1934). Yes No

The aggregate market value of voting common equity held by non-affiliates of the registrant is $64,718,498 as of June 30, 2016.

Number of shares of Common Stock outstanding as of March 14, 2017: 7,544,076

DOCUMENTS INCORPORATED BY REFERENCE:

Portions of the Company's Proxy Statement for the Company's 2017 Annual General Meeting of Stockholders are incorporated by reference into Part III of this Report.

XOMA Corporation

2016 FORM 10-K ANNUAL REPORT

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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.

PART I

Certain statements contained herein related to the anticipated size of clinical trials, the anticipated timing of initiation of clinical trials, the expected availability of clinical trial results, the results of clinical trials, the timing of any application for regulatory approval of our product candidates by the FDA or other regulatory authority, the sufficiency of our cash resources, the estimated costs of clinical trials and the amounts of certain revenues and certain costs in comparison to prior years, or that otherwise relate to future periods, are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). All statements, other than statements of historical fact are statements that could be deemed forward looking statements. The words "believe," "may," "estimate," "continue," "could," "anticipate," "assume," "int "expect," "predict," "potential" "should," "would," and similar expressions are intended to identify forward-looking statements 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 companies engaged in the development of new products in a regulated market. Among other things: our product candidates are still being developed, and we will require substantial funds to continue development which may not be available; we have received negative results from certain of our clinical trials, and we face uncertain results of other clinical trials of our product candidates; if our therapeutic product candidates do not receive regulatory approval, neither our third-party licensees, our contract manufacturers nor we will be able to manufacture and market them; we may not obtain orphan drug exclusivity or we may not receive the full benefit of orphan drug exclusivity even if we obtain such exclusivity; 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 may not be successful in commercializing our products, which could also affect our development efforts; we 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

XOMA Corporation ("XOMA"), a Delaware corporation, has an established history of discovering and developing innovative therapeutics derived from its unique platform of antibody technologies. We typically have sought to license these therapeutic assets to our licensees who take on the responsibilities of later stage development, approval and commercialization. In addition, we have licensed our antibody technologies on a non-exclusive basis to other companies who desire to access this platform for their own discovery efforts.

We are evolving our strategy to be focused on developing or acquiring revenue-generating assets and coupling them with a lean corporate infrastructure. Our goal is to create a sustainably profitable business and generate meaningful value for our stockholders. Since our business model is based on the goal of out-licensing to other pharmaceutical companies for them to commercialize and market any resultant products, we expect a significant portion of our future revenue will be based on payments we may receive from our licensees.

We have a portfolio of product candidates, programs, and technologies that are the subject of licenses we have in place with pharmaceutical and biotech companies including Novartis International Pharmaceutical Ltd. (“Novartis”), Novo Nordisk A/S (“Novo Nordisk”), Takeda Pharmaceutical Company Ltd. (“Takeda”), Johnson & Johnson, Five Prime Therapeutics, Inc. (“Five Prime”), and Alexion Pharmaceuticals, Inc. There are over 20 such programs that are funded by other companies and could produce milestone payments and royalty payments in the future.

Our asset base includes antibodies with unique properties including several that interact at allosteric sites on a specific protein rather than the orthosteric, or active, sites. These compounds are designed to either enhance or diminish the target protein's activity as desired. We believe allosteric-modulating antibodies may be more selective or offer a safety advantage in certain disease indications when compared to more traditional modes of action.

In February 2017, we achieved initial proof-of-concept ("POC") with our first-in-class X358 clinical program for patients with hypoglycemia due to congenital hyperinsulinism ("CHI") and patients with hypoglycemia post bariatric surgery ("PBS"). These two indications are rare conditions with very few therapeutic options. Consistent with the strategy outlined above, it is our intention to maximize the value of X358 for shareholders through a licensing agreement, either now or after continued investment to increase its value to a prospective partner. We believe this approach will expedite potential patient access for those in need of new treatment options in hyperinsulinemic hypoglycemia.

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 2910 Seventh Street, Berkeley, California 94710, 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.

Business Strategy

We have traditionally specialized in the discovery and development of innovative antibody-based therapeutics. In 2016, we dedicated our research and development efforts to advancing our portfolio of product candidates that have the potential to treat a variety of endocrine diseases, including advancing the development of X358 in CHI and PBS studies. We have recently refined our business strategy to prioritize out-licensing of our internally developed product candidates while reducing further internal expenditures for research and development.

Our business model is designed to create value for stockholders by assembling a diversified portfolio of biotech and pharmaceutical revenue streams and operating that business with an efficient and low corporate cost structure. Our goal is to become a sustainably profitable company that offers investors an opportunity to participate in the promise of the biotech industry in a diversified, lower-risk business investment than a typical biotech. Our business model is based on the concept of out-licensing product candidates that we have developed internally and partnering with other pharmaceutical companies to leverage their capabilities in the areas of late-stage development, regulatory management and commercialization to ultimately generate revenue for our company. Our revenue currently consists mostly of license fees and milestones from our licensees. In addition to advancing our early-stage proprietary drug candidates, we intend to use an acquisition strategy to add new assets, pipelines, and technologies that we anticipate will generate additional revenue streams in future years.

Proprietary Product Candidates

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

- X358 is a first-in-class fully human negative allosteric modulating insulin receptor antibody that was derived from our proprietary XMet platform. We are investigating this antibody as a novel treatment for non-drug-induced, endogenous hyperinsulinemic hypoglycemia (low blood glucose caused by excessive insulin produced by the body). There are two rare disease indications that may benefit from X358 that are of greatest interest to us: CHI, a hereditary disease resulting in lack of insulin regulation and profound hypoglycemia, and hypoglycemia in hyperinsulinemic PBS patients. In June 2015, we were granted Orphan Drug Designation for X358 by the Food and Drug Administration (“FDA”) for the treatment of CHI, and in June 2016, we received Orphan Drug Designation for X358 in the same indication from the European Union.

X358 has successfully completed Phase 1 testing in healthy volunteers, which showed the antibody reduced insulin sensitivity and decreased glucose after exogenous insulin injection and it appeared to be well tolerated, with no serious adverse events observed. The results were presented at the Endocrine Society's Annual Meeting in March 2015.

In October 2015, we initiated a single-dose Phase 2 POC study of X358 in patients with CHI and in April 2016, we initiated a single-dose Phase 2 POC study of X358 in PBS patients experiencing hypoglycemia after meals. In September 2016, we presented the initial data from nine patients who had enrolled in the CHI and PBS studies, together with safety data from 22 healthy volunteers. Shortly thereafter, we submitted a proposal to the United Kingdom's Medicines and Healthcare Products Regulatory Agency ("MHRA") to initiate a multi-dose Phase 2 clinical study of X358 in children two years and older diagnosed with CHI. The MHRA approved the protocol in principal, and the study is in now in review at local ethics committees. We anticipate the site to be ready for first dosing in the UK in the second quarter of 2017. Submissions of this study are underway in Germany, Denmark and Israel as well.

In January 2017, we announced that we have established POC for X358 in CHI and hypoglycemia PBS. The CHI acute studies met their objectives of establishing initial safety and X358 POC in CHI patients aged 12 and up across several dosing levels. We are nearing the launch of a multi-dose study in children with CHI aged two and up that will be conducted in the United Kingdom. The PBS study has completed dosing in the single-dose cohorts and has also met its objectives. In February 2017, we initiated a multi-dose study in PBS.

We believe a therapy that safely and effectively mitigates insulin-induced hypoglycemia has the potential to address a significant unmet therapeutic need for these rare medical conditions associated with hyperinsulinism.

- 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. Prolactin is a protein that in normal post-partum females enables the production of milk. In some cases, including prolactinomas, which are benign tumors of the pituitary gland in both men and women, excess secretion can lead to various clinically significant abnormal signs and symptoms. We discovered X213 under our collaboration with Novartis AG (formerly Chiron Corporation), and we exercised our right to bring the product back into our portfolio to develop it for diseases of hyperprolactinemia. We have initiated a Phase 2A POC study in women who wish to suppress lactation.

X213 could be developed to treat hyperprolactinemia in prolactinomas, a condition of benign tumors on the pituitary gland that leads to sexual dysfunction, infertility, and osteoporosis. For ten percent of the 140,000 prolactinoma patients in the United States, existing therapies are poorly tolerated or not effective. It also could be developed for anti-psychotic-induced hyperprolactinemia, a side effect seen in patients treated with commonly used antipsychotics, antidepressants, and pain medications. These patients exhibit the same signs and symptoms as prolactinoma, and compliance with anti-psychotic therapies is poor. Currently available therapies to address these side effects can worsen psychosis.

- X129 is a highly potent fragment of a monoclonal antibody ("Fab") with negative allosteric modulation activity against the insulin receptor. In animal model testing, it appears to have a fast-onset of action and short half-life. Hypoglycemia is a serious medical condition in patients with Type 2 diabetes mellitus and Type 1 diabetes mellitus ("T1 DM") and can occur as a result of insulin therapy, accidental insulin overdose or treatment with sulfonylureas. Recurrent hypoglycemia leads to diminished recognition of the symptoms, which include palpitations, tremors, anxiety, sweating, and hunger. This reduced sensitivity to hypoglycemic symptoms can lead to more prolonged episodes and the advancement into acute severe hypoglycemia, which can result in confusion, loss of consciousness, and seizure. Acute severe hypoglycemia often presents during the nocturnal hours in patients who are treated aggressively for their T1 DM, which puts them at elevated risk for loss of consciousness and seizure. The medical community has long been challenged with how to prevent patients from experiencing nocturnal acute severe hypoglycemia, yet there have not been any significant breakthroughs in pharmaceutical development efforts or experiments in dietary practices.

We have conducted preclinical testing for X129. In vitro assays showed X129 decreases the activity of insulin on mammalian cells over-expressing human, rat and minipig insulin receptor ("INSR") in a dose-dependent manner.

Further studies confirmed X129 binds to the INSR and acts as a negative allosteric modulator. In animal studies, potential rescue of insulin or sulphonylurea-induced hypoglycemia was modeled in normal rats. Administration of insulin or glibenclamide (a sulfonylurea) produced abnormally low glucose levels. Intravenous administration of X129 at time points wherein the drug-induced glucose levels were falling below normal levels rapidly stabilized blood glucose levels thereby preventing hypoglycemia. In normal minipigs, intramuscular administration normalized the hypoglycemia induced by Vetsulin (an intermediate acting pig insulin) with the effect lasting for several hours, thereby confirming the activity in mammals. When tested in a nocturnal hypoglycemia model in minipigs, subcutaneous administration of X129 successfully prevented blood glucose drop through the eight-hour duration of the study. The results from the rat studies were presented at the Endocrine Society's Annual Meeting in April 2016. The results from the minipig studies will be presented at the Endocrine Society's Annual Meeting in April 2017. We believe X129 could potentially offer clinicians a therapy that has rapid onset, improved efficacy and optimal duration of therapy to treat patients with acute severe hypoglycemia where currently available therapies are inadequate.

- Gevokizumab is a potent humanized monoclonal antibody with unique allosteric properties that has the potential to treat patients with a wide variety of inflammatory diseases. Gevokizumab binds strongly to interleukin 1 ("IL-1") beta, a pro-inflammatory cytokine. By binding to IL-1 beta, gevokizumab modulates the activation of the IL-1 receptor, thereby preventing the cellular signaling events that produce inflammation.

In December 2010, we entered into a collaboration agreement with Les Laboratories Servier ("Servier") to jointly develop and commercialize gevokizumab in multiple indications. Under the terms of that collaboration agreement, Servier had worldwide rights to gevokizumab for cardiovascular disease and diabetes indications (cardiometabolic field) and rights outside the United States and Japan to all other indications.

On July 22, 2015, we announced the Phase 3 EYEGUARD-B study of gevokizumab in patients with Behçet's disease uveitis did not meet the primary endpoint of time to first acute ocular exacerbation. Due to these results and belief they would be predictive of results in our other EYEGUARD studies of gevokizumab in patients with non-infectious uveitis ("NIU"), in August 2015 we decided to end the EYEGUARD global Phase 3 program prior to its planned completion. Servier and we closed down the EYEGUARD clinical sites and, as anticipated, neither EYEGUARD-A nor EYEGUARD-C produced positive results.

In September 2015, Servier notified us of its intention to terminate the collaboration agreement, and return the worldwide gevokizumab rights to XOMA. The termination of the collaboration agreement became effective on March 25, 2016.

In March 2016, we closed our Phase 3 study of gevokizumab in pyoderma gangrenosum ("PG"). A preliminary review of the data from the study did not show a clear signal of activity in PG.

- Additional Preclinical Product Candidates: In November 2016, we unveiled two novel oncology and oncology-related product candidates.
  - The first targets interleukin 2, ("IL-2"), which 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.
  - The other is an anti-parathyroid receptor ("PTH1R") portfolio 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'. XOMA's 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 technical and business 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™, XOMA has 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 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.
- Flexible Manufacturing: patented technology relating to a flexible arrangement of mobile clean rooms (“MCRs”) within a manufacturing facility, with each MCR providing a portable, self-contained environment that allows for drug development. The facility design allows MCRs to connect easily and quickly to a central supply of utilities such as air, water, and electricity. This unique arrangement facilitates flexible manufacturing and eliminates change-over downtime. This translates into significantly reduced capital expenditures, production costs, and maintenance costs while offering meaningful time advantages over conventional manufacturing facilities. When MCRs are not in use, they can be easily moved to cleaning/refurbishing areas and prepared MCRs can be "plugged in" for manufacturing. The flexible manufacturing system can be applied to fields as diverse as pharmaceuticals, biologics, and electronics.

Financial and Legal Arrangements of Product Collaborations, Licensing and Other Arrangements

Licensing and Collaboration Agreements

Historically, we have licensed with or provided research and development collaboration services to world-class organizations, including Novartis, Novo Nordisk and Takeda in pursuit of new antibody products, and we expect that we will continue to capitalize on partnered product arrangements as opportunities arise. Below is a list of such license arrangements:

Novartis – Anti-TGF Antibody

In September 2015, we and Novartis entered into a license agreement (the “License Agreement”) under which we granted Novartis an exclusive, worldwide, royalty-bearing license to our anti-TGF- antibody program. Novartis 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 up to a low double-digit percentage rate. Novartis’ 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.

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. These royalties are tiered based on sales levels and now range from a mid-single digit percentage rate to up to a low double-digit percentage rate.

In 2013, we received a $7.0 million milestone relating to one currently active program. Our right to milestone payments expires at such time as no collaboration product or former collaboration product is being developed or commercialized anywhere in the world and no royalty payments on these products are due. Our right to royalty payments expires on the later of the expiration of any licensed patent covering each product or 10 years from the launch of each product.

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. At December 31, 2016, the outstanding principal balance under this note agreement totaled $14.1 million and was included in our long-term portion of interest bearing obligations in our consolidated balance sheet as of December 31, 2016. Under the terms of the arrangement as restructured in November 2008, we will not make any additional borrowings on the Novartis note.

Novo Nordisk

In December 2015, we entered into a license agreement with Novo Nordisk under which we granted Novo Nordisk an exclusive, world-wide, royalty-bearing license to our XMetA program of allosteric monoclonal antibodies that positively modulate the insulin receptor (the "XMetA Program"), subject to our retained commercialization rights for rare disease indications. Novo Nordisk has an option to add these additional rights to its license upon payment of an option fee.

Novo Nordisk is solely responsible for its expenses for the development and commercialization of antibodies and products containing antibodies arising from the XMetA Program, subject to our retained rights described above. We have transferred certain proprietary know-how and materials relating to the XMetA Program to Novo Nordisk. Under the agreement, we received a $5.0 million, non-creditable, non-refundable, upfront payment. Based on the achievement of pre-specified criteria, we are eligible to receive up to $290.0 million in development, regulatory and commercial milestones. We are also eligible to receive royalties on sales of licensed products, which are tiered up to a high-single-digit percentage rate based on sales levels. Novo Nordisk's obligation to pay development and commercialization milestones will continue for so long as Novo Nordisk is developing or selling products under the agreement, subject to the maximum milestone payment amounts set forth above. Novo Nordisk'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.

The agreement contains customary termination rights relating to material breach by either party. Novo Nordisk also has a unilateral right to terminate the agreement in its entirety on ninety (90) days' notice.

Servier – Gevokizumab

In December 2010, we entered into a license and collaboration agreement (the "Collaboration Agreement") with Servier to jointly develop and commercialize gevokizumab in multiple indications. Under the terms of the Collaboration Agreement, Servier obtained worldwide rights to cardiovascular disease and diabetes indications (cardiometabolic field) and rights outside the United States and Japan to all other indications, including NIU, Behçet's disease uveitis and other inflammatory and oncology indications. We retained development and commercialization rights in the United States and Japan for all indications other than cardiovascular disease and diabetes.

In December 2010, we also entered into a loan agreement with Servier (the "Servier Loan Agreement") that provided for an advance of up to €15.0 million. The loan was fully funded in January 2011, with the proceeds converting to approximately $19.5 million at the date of funding. The loan is secured by an interest in XOMA's intellectual property rights to all gevokizumab indications worldwide, excluding certain rights in the United States and Japan. Interest is calculated at a floating rate based on a Euro Inter-Bank Offered Rate and is subject to a cap. The interest rate is reset semi-annually in January and July of each year. The interest rate for the initial interest period was 3.22% and was reset semi-annually ranging from 1.81% to 3.83%. Interest for the six-month period from mid-July 2016 through

mid-January 2017 was reset to 1.81%. Interest is payable semi-annually and in January 2017, we paid $0.1 million in accrued interest to Servier.

On January 9, 2015, Servier and we entered into Amendment No. 2 (“Loan Amendment”) to the Servier Loan Agreement. The Loan Agreement was initially entered into on December 30, 2010 and subsequently amended by a Consent, Transfer, Assumption and Amendment Agreement entered into as of August 12, 2013, where the loan was transferred from XOMA Ireland Limited to XOMA (US) LLC. The Loan Amendment extended the maturity date of the loan from January 13, 2016 to three tranches of principal to be repaid as follows: €3.0 million on January 15, 2016, €5.0 million on January 15, 2017, and €7.0 million on January 15, 2018. In addition, the loan becomes immediately due and payable upon certain customary events of default. In January 2016, we paid the principal amount of €3.0 million. At December 31, 2016, the outstanding principal balance under this loan was $12.6 million using the December 31, 2016 Exchange Rate of 1.052. In January 2017, we entered into Amendment No. 3 to the Servier Loan Agreement (“Amendment No. 3”). Amendment No. 3 extended the maturity date of the €5.0 million due on January 15, 2017 to July 15, 2017. The other terms of the loan remained unchanged.

On September 28, 2015, Servier notified us of its intention to terminate the Collaboration Agreement, as amended, and return the gevokizumab rights to us. The termination became effective on March 25, 2016, and did not result in a change to the then maturity date of our loan with Servier.

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 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.

We have completed a technology transfer and do not expect to perform any further research and development services under this program. From 2011 through 2016, we received milestone payments totaling $2.3 million relating to one currently active program.

Pfizer

In August 2007, we entered into a license agreement (the “2007 Agreement”) with Pfizer Inc. (“Pfizer”) for non-exclusive, worldwide rights for our patented bacterial cell expression technology for research, development and manufacturing of antibody products. In December 2015, we entered into a settlement and amended license agreement with Pfizer, under which we granted Pfizer fully-paid, royalty-free, worldwide, irrevocable, non-exclusive license rights to our patented bacterial cell expression technology for phage display and other research, development and manufacturing of antibody products for cash payment by Pfizer of $3.8 million in full satisfaction of all obligations to us under the 2007 Agreement between XOMA (then XOMA Ireland Limited) and Pfizer Inc., including all potential milestone, royalty and other fees under the 2007 Agreement. As a result of the settlement with Pfizer, the 2007 Agreement was terminated.

In August 2005, we entered into a license agreement with Wyeth (subsequently acquired by Pfizer) for non-exclusive, worldwide rights for certain of our patented bacterial cell expression technology for vaccine manufacturing. In December 2016, we sold our rights to receive further royalties under this agreement for an upfront payment of $6.5 million and potential future payments of up to $4.0 million.

Dyax

In October 2006, we entered into an amended and restated license agreement with DYAX, Corp. (“Dyax”) for worldwide, non-exclusive licenses for our patented bacterial cell expression technology in phage display. In consideration for the rights granted to Dyax, we received an upfront fee of $3.5 million. In addition, we would be eligible to receive royalties equal to 0.5% on net sales of any products subject to this license. In December 2016, we sold our rights to receive further royalties under this agreement for a payment of $11.5 million.

Sale of Biodefense Assets and Manufacturing Facility

On November 4, 2015, we entered into an asset purchase agreement with Nanotherapeutics Inc. (the "Nanotherapeutics Purchase Agreement"), under which Nanotherapeutics agreed to acquire our biodefense business and related assets (including, subject to regulatory approval, 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 "Nanotherapeutics License Agreement"), under which we agreed to license to Nanotherapeutics certain intellectual property rights related to the purchased assets. Under the Nanotherapeutics License Agreement, we are eligible for up to $4.5 million of cash payments and 23,008 shares of common stock of Nanotherapeutics, based upon Nanotherapeutics achieving certain specified future operational objectives. In addition, we are eligible to receive 15% royalties on net sales of products. In February 2017, we executed an Amendment and Restatement to both the Nanotherapeutics Purchase Agreement and Nanotherapeutics License Agreement primarily to (i) remove the obligation to issue 23,008 shares of common stock of Nanotherapeutics under the Nanotherapeutics Purchase Agreement, and (ii) revise the payment schedule related to the timing of the $4.5 million cash payments due to us under the Nanotherapeutics License Agreement. Of the $4.5 million, $3.0 million is contingent upon Nanotherapeutics achieving certain specified future operating objectives.

On November 5, 2015, we entered into an asset purchase agreement (the "Agenus Purchase Agreement") with Agenus West, LLC, a wholly-owned subsidiary of Agenus Inc. ("Agenus"), pursuant to which Agenus agreed to acquire our pilot scale manufacturing facility in Berkeley, California, together with certain related assets, including a license to certain intellectual property related to the purchased assets, and to assume certain liabilities of XOMA, in consideration for the payment to us of up to $5.0 million in cash and the issuance to us of shares of Agenus's common stock having an aggregate value of up to $1.0 million. The Agenus Purchase Agreement closed on December 31, 2015. At closing, we received cash of $4.7 million, net of the assumed liabilities of $0.3 million. In addition to the cash consideration, we received shares of common stock of Agenus with an aggregate value of $0.5 million, which we subsequently sold in August 2016. The remaining common stock of Agenus will only be received upon our satisfaction of certain operational matters, which we are unlikely to satisfy.

Sale of Future Revenue Streams

On December 21, 2016, we entered into two Royalty Interest Acquisition Agreements (together, the "Acquisition Agreements") with HealthCare Royalty Partners II, L.P. ("HCRP"). Under the first 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 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. Under the second Acquisition Agreement, we sold all rights to royalties under an Amended and Restated License Agreement dated October 27, 2006 between XOMA and Dyax for a cash payment of $11.5 million.

Financing Agreements

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. We used a portion of the proceeds received under the Hercules Loan Agreement to repay the outstanding principal, final payment fee, prepayment fee, and accrued interest of $5.5 million under a loan agreement with General Electric Capital Corporation.

The interest rate under the Hercules Loan Agreement is calculated at a rate equal to the greater of either (i) 9.40% plus the prime rate as reported from time to time in The Wall Street Journal minus 7.25%, and (ii) 9.40%. Payments under

the Hercules Loan Agreement were interest only until June 1, 2016, after which we have paid equal monthly payments of principal and interest amortized over a 30-month schedule through the scheduled maturity date of September 1, 2018 (the "Hercules Loan Maturity Date"). The entire principal balance, including a balloon payment of principal, will be due and payable on the Hercules Loan Maturity Date. In addition, a final payment of $1.2 million will be due on the Hercules Loan Maturity Date, or such earlier date specified in the Hercules Loan Agreement. If we prepay the loan prior to the Hercules Loan Maturity Date, we may pay Hercules a prepayment charge equal to 1.00% of the amount prepaid. Our obligations under the Hercules Loan Agreement are secured by a security interest in substantially all of our assets, other than our intellectual property.

The Hercules 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. Upon the occurrence of an event of default, a default interest rate of an additional 5% may be applied to the outstanding loan balances, and Hercules may declare all outstanding obligations immediately due and payable and take such other actions as set forth in the Hercules Loan Agreement. On December 21, 2016, we entered into Amendment No. 1 (the "Hercules Amendment") to the Hercules Loan Agreement. Under the Hercules Amendment, Hercules agreed to release its security interest on the assets subject to the Acquisition Agreements with HCRP. In turn, in January 2017, we paid $10.0 million of the outstanding principal balance owed to Hercules. The $10.0 million payment was not subject to any prepayment charge. After taking into account the January 2017 payment, the principal balance of the Hercules Loan was $6.9 million.

In connection with the Hercules Loan Agreement, we issued a warrant to Hercules that is exercisable for an aggregate of up to 9,063 shares of our common stock at an exercise price of $66.20 per share (the "Hercules Warrant"). The Hercules Warrant may be exercised on a cashless basis and is exercisable for a term beginning on the date of issuance and ending on the earlier to occur of five years from the date of issuance or the consummation of certain acquisitions of XOMA as set forth in the Hercules Warrant. The number of shares for which the Hercules Warrant is exercisable and the associated exercise price are subject to certain proportional adjustments as set forth in the Hercules Warrant.

Research and Development

Our research and development expenses currently include costs of personnel, supplies, facilities and equipment, consultants, third-party costs and other expenses related to preclinical and clinical testing. In 2016, our research and development expenses were $44.2 million, compared with $70.9 million in 2015 and $80.7 million in 2014.

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 2016, research and development expenses relating to internal projects were $42.8 million, compared with $50.2 million in 2015 and $51.3 million in 2014. In 2016, research and development expenses related to collaborative and contract arrangements were $1.4 million, compared with $20.7 million in 2015 and $29.4 million in 2014. In December 2016, we initiated a corporate reorganization to eliminate all activities not directly in support of X358 clinical development.

Competition

The biotechnology and pharmaceutical industries are subject to continuous and substantial technological change. Competition in antibody-based technologies is intense and is expected to increase as new technologies emerge and established biotechnology firms and large chemical and pharmaceutical companies continue to advance in the field. A number of these large pharmaceutical and chemical companies have enhanced their capabilities by entering into arrangements with or acquiring biotechnology companies or entering into business combinations with other large pharmaceutical companies. Many of these companies have significantly greater financial resources, larger research and development and marketing staffs, and larger production facilities than ours. Moreover, certain of these companies have extensive experience in undertaking preclinical testing and human clinical trials. These factors may enable other companies to develop products and processes competitive with or superior to ours. 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 may not be able to track development of competitive products, particularly at the early stages. There can be no assurance that developments by others will not render our products or technologies obsolete or uncompetitive.

Without limiting the above, we are aware of the following competitors for our X358 product candidate: Biodel, Inc.; Eiger Biopharmaceuticals; Eli Lilly and Company; Locemia Solutions; S-cubed Limited; Xeris Pharmaceuticals and Zealand Pharma A/S. This list is not intended to be representative of all existing competitors in the market.

Government Regulation

The FDA and comparable regulatory agencies in state and local jurisdictions and in foreign countries impose substantial requirements upon the clinical development, pre-market approval, manufacture, marketing, import, export and distribution of biopharmaceutical products. These agencies and other regulatory agencies regulate research and development activities and the testing, approval, manufacture, quality control, safety, effectiveness, labeling, storage, recordkeeping, advertising and promotion of products and product candidates. Failure to comply with FDA or other regulatory requirements may result in Warning Letters, civil or criminal penalties, suspension or delays in clinical development, recall or seizure of products, partial or total suspension of production or withdrawal of a product from the market. The development and approval process requires substantial time, effort and financial resources, and we cannot be certain that any approvals for our product candidates will be granted on a timely basis, if at all. Our product candidates must be approved by the FDA before we can begin marketing them in the United States. Similar approvals are also required in other countries.

Product development and approval within this regulatory framework is uncertain, can take many years and requires the expenditure of substantial resources. The nature and extent of the governmental review process for our product candidates will vary, depending on the regulatory categorization of particular product candidates and various other factors.

The necessary steps before a new biopharmaceutical product may be sold in the United States ordinarily include:

- preclinical in vitro and in vivo tests, which must comply with Good Laboratory Practices (“GLP”);
- submission to the FDA of an Investigational New Drug application (“IND”) which must become effective before clinical trials may commence, and which must be updated annually with a report on development;
- completion of adequate and well controlled human clinical trials to establish the safety and efficacy of the product candidate for its intended use;
- submission to the FDA of a biologic license application (“BLA”), which must often be accompanied by payment of a substantial user fee;
- FDA pre-approval inspection of manufacturing facilities for current Good Manufacturing Practices (“GMP”), compliance and FDA inspection of select clinical trial sites for Good Clinical Practice (“GCP”), compliance; and
- FDA review and approval of the BLA and product prescribing information prior to any commercial sale.

The results of preclinical tests (which include laboratory evaluation as well as preclinical GLP studies to evaluate toxicity) for a particular product candidate, together with related manufacturing information and analytical data, are submitted as part of an IND to the FDA. The IND automatically becomes effective 30 days after receipt by the FDA, unless the FDA, within the 30-day time period, raises concerns or questions about the conduct of the clinical trial, including concerns that human research subjects will be exposed to unreasonable health risks. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before the clinical trial can begin. IND submissions may not result in FDA authorization to commence a clinical trial. A separate submission to an existing IND must also be made for each successive clinical trial conducted during product development. Further, an independent institutional review board (“IRB”), for each medical center proposing to conduct the clinical trial must review and approve the plan for any clinical trial before it commences at that center and it must monitor the study until completed. The FDA, the IRB, or the sponsor may suspend a clinical trial at any time on various grounds, including a finding that the subjects or patients are being exposed to an unacceptable health risk. Clinical testing also must satisfy extensive GCP regulations and regulations for informed consent and privacy of individually identifiable information.

Clinical trials generally are conducted in three sequential phases that may overlap or in some instances, be skipped. In Phase 1, the initial introduction of the product into humans, the product is tested to assess safety, metabolism, pharmacokinetics and pharmacological actions associated with increasing doses. Phase 2 usually involves trials in a

limited patient population to evaluate the efficacy of the potential product for specific, targeted indications, determine dosage tolerance and optimum dosage and further identify possible adverse reactions and safety risks. Phase 3 and pivotal trials are undertaken to evaluate further clinical efficacy and safety often in comparison to standard therapies within a broader patient population, generally at geographically dispersed clinical sites. Phase 4, or post-marketing, trials may be required as a condition of commercial approval by the FDA and may also be voluntarily initiated by us or our licensees. Phase 1, Phase 2 or Phase 3 testing may not be completed within any specific period of time, if at all, with respect to any of our product candidates. Similarly, suggestions of safety, tolerability or efficacy in earlier-stage trials do not necessarily predict findings of safety and effectiveness in subsequent trials. Clinical trials are subject to central registration and results reporting requirements, such as on www.clinicaltrials.gov.

The results of preclinical studies, pharmaceutical development and clinical trials, together with information on a product's chemistry, manufacturing, and controls, are submitted to the FDA in the form of a BLA, for approval of the manufacture, marketing and commercial shipment of the biopharmaceutical product. Data from clinical trials are not always conclusive and the FDA may interpret data differently than we or our licensees interpret data. The FDA also may convene an Advisory Committee of external advisors to answer questions regarding the approvability and labeling of an application. The FDA is not obligated to follow the Advisory Committee's recommendation. The submission of a BLA is required to be accompanied by a substantial user fee, with few exceptions or waivers. The user fee is administered under the Prescription Drug User Fee Act, which sets goals for the timeliness of the FDA's review. A standard review period is twelve months from submission of the application, while priority review is eight months from submission of the application. The testing and approval process is likely to require substantial time, effort and resources, and there can be no assurance that any approval will be granted on a timely basis, if at all. The FDA may deny review of an application by refusing to file the application or not approve an application by issuance of a complete response letter if applicable regulatory criteria are not satisfied, require additional testing or information, or require risk management programs and post-market testing and surveillance to monitor the safety or efficacy of the product. Approval may occur with significant Risk Evaluation and Mitigation Strategies ("REMS"), which limit the clinical use in the prescribing information, distribution or promotion of a product. Once issued, the FDA may withdraw product approval if ongoing regulatory requirements are not met or if safety problems occur after the product reaches the market.

Orphan drugs are those intended for use in rare diseases or conditions. As a result of the high cost of development and the low return on investment for rare diseases, certain governments provide regulatory and commercial incentives for the development of drugs for small disease populations. In the United States, the term ''rare disease or condition'' means any disease or condition that affects fewer than 200,000 people in the United States. Applications for U.S. orphan drug status are evaluated and granted by the Office of Orphan Products Development ("OOPD") of the FDA and must be requested before submitting a BLA. In the United States, orphan drugs are subject to the standard regulatory process for marketing approval but are exempt from the payment of user fees for licensure, may receive market exclusivity for a period of seven years and some tax benefits, and are eligible for OOPD grants. If a product with orphan designation subsequently receives the first FDA approval for the disease or condition for which it has such designation, the product is entitled to orphan product exclusivity, which means the FDA may not approve any other applications to market the same drug or biological product for the same indication, except in very limited circumstances, for seven years. Competitors, however, may receive approval of different products for the indication for which the orphan product has exclusivity or obtain approval for the same product but for a different indication for which the orphan product has exclusivity. Orphan product exclusivity also could block the approval of one of our products for seven years if a competitor obtains approval of the same drug or biological product as defined by the FDA or if our product candidate is determined to be contained within the competitor's product for the same indication or disease. If a drug or biological product designated as an orphan product receives marketing approval for an indication broader than what is designated, it may not be entitled to orphan product exclusivity.

International Regulation

In addition to regulations in the United States, we are subject to a variety of foreign regulations governing clinical trials and commercial sales and distribution of any future products. Whether or not we obtain FDA approval for a product, we must obtain approval by the comparable regulatory authorities of foreign countries before we can commence clinical trials or market the product in those countries. The approval process varies from country to country, and the time may be longer or shorter than that required for FDA approval. The requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement vary greatly from country to country.

Patents and Trade Secrets

Patent and trade secret protection are important to our business and our future will depend in part on our ability to obtain patents, maintain trade secret protection and operate without infringing on the proprietary rights of others. As a result of our ongoing activities, we hold and have filed applications for a number of patents in the United States and internationally to protect our products and important processes. We also have obtained or have the right to obtain licenses to 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 ("Patent Office") with respect to biotechnology patents. Accordingly, no assurance can be given that our patents will afford protection against competitors with similar technologies or others will not obtain patents claiming aspects similar to those covered by our patent applications.

We have established a portfolio of patents in the United States, Europe and certain other countries for our insulin receptor antibody programs. European Patent 2 480 254 and Japanese patent 5849050 cover insulin receptor-modulating antibodies having the functional properties of X358. U.S. Patent No. 8,926,976 covering insulin receptor-activating antibodies having the functional properties of the lead antibody in our XMetA program, subsequently licensed to Novo Nordisk. WO2016/141111 relates to methods of treating or preventing post-prandial hypoglycemia after gastric bypass surgery using a negative modulator antibody to the insulin receptor. WO2017/024285 relates to methods of treating or preventing hypoglycemia using a negative modulator antibody fragment that binds to the insulin receptor. Additional patent applications covering our insulin receptor antibody programs are pending in the U.S. and certain other countries.

We have exclusive worldwide rights to a family of patents relating to our prolactin receptor antibody program, X213, following return of the program by Novartis. Issued patents in the family include US Patent No. 7,867,493 and EP 2 059 535.

We have established a portfolio of patents in the United States, Europe and certain other countries for our gevokizumab program. U.S. Patent Nos. 7,531,166 (which expires in 2027) and 7,582,742 cover gevokizumab and other antibodies and antibody fragments with similar binding properties for IL-1 beta, as well as nucleic acids, expression vectors and production cell lines for the manufacture of such antibodies and antibody fragments. U.S. Patent Nos. 7,695,718, 8,101,166, 8,586,036, 8,545,846, 8,377,429 and 9,163,082 relate to 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 beta, including gevokizumab. U.S. Patent No. 8,637,029 relates to methods of treating gout with certain doses of IL-1 beta binding antibodies or binding fragments. Additional U.S. Patents relate to methods of treating certain IL-1 related inflammatory diseases, TI DM, certain cancers, certain IL-1 beta related coronary conditions, inflammatory eye disease or uveitis, with gevokizumab or other IL-1 beta antibodies and fragments having similar binding properties. U.S. Patent Nos. 8,551,487 and 9,139,646 relate to methods of treating refractory uveitis with IL-1 beta binding antibodies and binding fragments. Also, patents have been granted by the European Patent Office and certain other countries for gevokizumab, as well as nucleic acids, expression vectors and production cell lines for the manufacture of gevokizumab.

In October 2015, we announced that we had exclusively licensed the global development and commercialization rights to our TGF antibody program to Novartis. The licensed intellectual property includes US Patent Nos. 8,569,464 and 9,145,458 covering our lead TGF antibodies and methods of use thereof, and WO2016/161410 relating to combination therapy using an inhibitor of TGFb and an inhibitor of PD-1 for treating or preventing recurrence of cancer.

We established a portfolio of patents related to our bacterial expression technology, including claims to methods for expression and secretion of recombinant proteins from bacteria, including immunoglobulin gene products, and improved methods and cells for expression of recombinant protein products. We have granted more than 60 licenses to biotechnology and pharmaceutical companies to use the Company’s patented and proprietary technologies relating to bacterial expression of recombinant pharmaceutical products. The last-to-expire patent licensed under the majority of these license agreements is Canadian patent 1,341,235, which is expected to expire in May 2018.

If certain patents issued to others are upheld or if certain patent applications filed by others issue and are upheld, we may require certain licenses from others in order 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.

Where appropriate, we also rely on trade secrets to protect aspects of our technology. However, trade secrets are difficult to protect. We protect our proprietary technology and processes, in part, by confidentiality agreements with

our employees, consultants and collaborators. These parties may breach these agreements, and we may not have adequate remedies for any breach. Our trade secrets may otherwise become known or be independently discovered by competitors. To the extent that we or our consultants or collaborators use intellectual property owned by others, we may have disputes with our collaborators or consultants or other third parties as to the rights in related or resulting know-how and inventions.

Financial Information about Geographic Areas

When and if we are able to generate income, a portion of that income may be derived from product sales and other activities outside the United States.

We have determined that we operate in one business segment as we only report operating results on an aggregate basis to the chief operating decision maker of XOMA. Our property and equipment is held in the United States.

Financial information regarding the geographic areas in which we operate and segment information is included in Note 14 to the December 31, 2016, Financial Statements: Concentration of Risk, Segment and Geographic Information.

Concentration of Risk

Five Prime, Servier, and National Institute of Allergy and Infectious Diseases ("NIAID") accounted for 27 percent, 22 percent, and 19 percent, respectively, of our total revenue in 2016. In 2015, Novartis accounted for 67 percent of our total revenue. NIAID and Servier accounted for 51 percent and 28 percent, respectively, of our total revenue in 2014. At December 31, 2016, NIAID accounted for 85 percent of the accounts receivable balance. At December 31, 2015, Five Prime, NIAID, Servier and Centocor accounted for 39 percent, 25 percent, 18 percent and 10 percent, respectively, of the accounts receivable balance. None of these parties represent a related party to XOMA and the loss of one or more of these customers could have a material effect on our business and financial condition.

Employees

As of March 14, 2017, we employed 18 full-time employees at our headquarters in Berkeley, California. In addition, there are seven employees who will terminate employment on either March 31, 2017 or June 30, 2017 in connection with the restructuring activities in December 2016. None of our employees are unionized. Our employees are primarily engaged in clinical operations and in executive, business development, finance and administrative positions.

Available Information

For information on XOMA's investment prospects and risks, please contact Pure Communications at (910) 726-1372 or by sending an e-mail message to investorrelations@xoma.com.

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:

- 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. All reports we file with the SEC also can be obtained free of charge via EDGAR through the SEC's website at http://www.sec.gov.
- 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 Financial Results and Capital Requirements

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

We had a net loss of $53.5 million, $20.6 million, and $38.3 million for the years ended December 31, 2016, 2015 and 2014, respectively. As of December 31, 2016, we had an accumulated deficit of $1.2 billion.

Our product candidates are still being developed, and 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.

We have devoted most of our financial resources to research and development, including our non-clinical development activities and clinical trials. To date, we have financed our operations primarily through the sale of equity securities and debt, and collaboration and licensing arrangements. Our total debt currently exceeds our total cash and cash equivalents. The size of our future net losses will depend, in part, on the rate of future expenditures and our ability to generate revenues. We expect to continue to incur substantial expenses as we continue our development and licensing activities for our product candidates. If our product candidates are not successfully developed or commercialized by our licensees, or if revenues are insufficient following marketing 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 ability to license our 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 our product candidates which may not materialize or prove to be successful.

Because our product candidates are still being developed, we will require substantial funds to continue; we cannot be certain that funds will be available, and if they are not available, we may be forced to delay, reduce, or eliminate our product development programs or to take actions that could adversely affect an investment in our common stock and we may not be able to continue operations.

We will need to commit substantial funds to continue development of our product candidates, and we may not be able to obtain sufficient funds on acceptable terms, or at all. Any additional debt financing or additional equity that we raise may contain terms that are not favorable to our stockholders or us. If we raise additional funds through collaboration and 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 collaboration arrangement for a product candidate at an earlier stage of development or for a lesser amount than we might otherwise choose.

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

- terminate or delay clinical trials for one or more of our product candidates;
- reduce or eliminate certain product development efforts; or
- further reduce our capital or operating expenditures; or
- curtail our spending on protecting our intellectual property.

We finance our operations primarily through our multiple revenue streams resulting from discovery and development collaborations, the licensing of our antibody technologies, debt and through sales of our common stock.

Based on our cash and cash equivalents of $25.7 million at December 31, 2016, plus the $24.9 million in net proceeds received from an equity financing in February 2017, and taking into consideration our anticipated spending levels and scheduled debt payments, without the receipt of funds from new license agreements or milestone payments based on development achievements of our licensees, we will be unable to fund our operations through the next 12 months following the issuance of our consolidated financial statements. Based on our current projections, we expect our current cash and cash equivalents will not be sufficient to fund our operations and pay scheduled debt payments beyond February of 2018. Therefore, we determined there is substantial doubt regarding our ability to continue as a going concern within one year from the date the consolidated financial statements are issued. Our independent registered public accounting firm has included in its auditor's report on our consolidated financial statements, included in this Annual Report on Form 10-K, a "going concern" explanatory paragraph, meaning that we have recurring losses from operations and negative cash flows from operations that raise substantial doubt regarding our ability to continue as a going concern. We may not be able to obtain sufficient additional funding through monetizing certain of our existing assets, entering into new license agreements, issuing additional equity or debt instruments or any other means, and if we are able to do so, they may not be on satisfactory terms. Consistent with the actions we have taken in the

past, we will take steps intended to enable the continued operation of the business which may include out-licensing or sale of assets and reducing other expenditures that are within our control. These reductions in expenditures may have a material adverse impact on our ability to achieve certain of our planned objectives. Progress or setbacks by potentially competing products also may affect our ability to raise new funding on acceptable terms.

We do not know when or whether:

- operations will generate meaningful funds;
- additional agreements for product development funding can be reached;
- we will be able to repay our current debt or negotiate new debt arrangements;

- strategic alliances can be negotiated; or
- adequate additional financing will be available for us to finance our own development on acceptable terms, or at all.

If adequate funds are not available, we will be required to delay, reduce the scope of, or eliminate one or more of our product development programs and further reduce costs. Even if we are able to source additional funding, we may be forced to significantly reduce our operations if our business prospects do not improve. If we are unable to source additional funding, we may be forced to shut down operations altogether.

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

Reducing costs is a key element of our current business strategy. On August 21, 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. On December 19, 2016, we approved a restructuring of our business based on our decision to focus our efforts on advancing our X358 clinical programs. The restructuring included a reduction-in-force in which we terminated 57 employees.

During the year ended December 31, 2016, we recorded an aggregate restructuring charge of approximately $4.6 million related to severance, other termination benefits and outplacement services in connection with the workforce reduction implemented in December 2016. During the year ended December 31, 2015, we recorded an aggregate restructuring charge of approximately $2.9 million related to severance, other termination benefits and outplacement services in connection with the workforce reduction implemented in August 2015. In addition, we recognized an additional restructuring charge of $0.8 million in total contract termination costs in the second half of 2015, which primarily include costs in connection with the discontinuation of the EYEGUARD studies.

If we experience excessive unanticipated inefficiencies or incremental costs in connection with restructuring activities, such as unanticipated inefficiencies caused by reducing headcount, we may be unable to meaningfully realize cost savings and we may incur expenses in excess of what we anticipate. Either 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 the Development and Commercialization of our Current and Future Product Candidates

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 some of our product candidates in order to provide for potential payments, funding and/or royalties on future product sales. The out-license agreements may also 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 royalty fees when anticipated, it may adversely affect our liquidity and we may be forced to curtail or delay development of our product candidates, which in turn may harm our business.

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

Our 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 Food and Drug Administration ("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. At the present time, we believe all of our product candidates will be regulated by the FDA as biologics.

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.

Based on regulatory restrictions, X358 clinical testing is currently limited to studies in adults in the U.S, and patients 12 and over in continental Europe. We submitted a proposal to the United Kingdom's Medicines and Healthcare Products Regulatory Agency ("MHRA") to initiate a multi-dose Phase 2 clinical study of X358 in children two years and older diagnosed with CHI. The MHRA approved the protocol in principal, and the study is in now in review at local ethics committees. We anticipate the site to be ready for first dosing in the UK in the second quarter of 2017. We cannot assure you that our proposed protocols for such testing will be approved, or that U.S. and foreign health authorities will not issue a clinical hold with respect to these or any of our other clinical trials in the future.

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. FDA regulations and policies permit applicants to request accelerated approval or priority review pathways for products intended to treat certain serious or life-threatening illnesses in certain circumstances. If granted by the FDA, these pathways can provide a shortened timeline to commercialize the product, although the shortened timeline is often accompanied by additional post-market requirements. Although we may pursue the FDA's accelerated approval or priority review programs, we cannot guarantee the FDA will permit us to utilize these pathways or the FDA's review of our application will not be delayed. Moreover, even if the FDA agrees to an accelerated approval or priority review of any of our applications, we ultimately may not be able to obtain approval of our application 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 we could encounter problems that cause us to abandon clinical trials or 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 each submitted product application may cause delays in the approval or rejection of an application. State regulations may also affect our proposed products.

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 or 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 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. As we accumulate additional clinical data, we and our licensees will submit it to the FDA and other regulatory agencies, as appropriate, and such data may have a material impact on the approval process.

We have received negative results from certain of our clinical trials, and we face uncertain results of other clinical trials of our product candidates.

Drug development has inherent risk, and we are required to demonstrate through adequate and well-controlled clinical trials that our product candidates are effective, with a favorable benefit-risk profile for use in their target profiles before we can seek regulatory approvals for their commercial use. It is possible we or our licensees may never receive regulatory approval for any of our 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.

In March 2014, we reported that despite early positive results in our gevokizumab proof-of-concept study in patients with erosive osteoarthritis of the hand ("EOA") and elevated C-reactive protein, the top-line data at Day 168 in that study, as well as data at Day 84 in patients with EOA and non-elevated CRP, were not positive. In July 2015, we announced that Servier's EYEGUARD-B Phase 3 study of gevokizumab in patients with Behçet's disease uveitis did not meet its primary endpoint. In addition, neither EYEGUARD-A nor EYEGUARD-C produced positive results. In March 2016, we decided to close our Phase 3 studies of gevokizumab in pyoderma gangrenosum ("PG"). A preliminary review of the available data did not show a clear signal of activity in PG.

Our 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 future filings will be delayed;
- our preclinical and clinical studies will be successful;
- we 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;
- we will be able to provide necessary data;
- results of future clinical trials will justify further development; or
- we ultimately will achieve regulatory approval for our product candidates.

The timing of the commencement, continuation and completion of clinical trials 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, engaging 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, if we license our product candidates to others to fund and conduct clinical trials, we may 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, we and our licensees conduct clinical trials in foreign countries, which may subject us 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.

All of our product candidates are prone to the risks of failure inherent in drug development. Preclinical studies may not yield results that satisfactorily support the filing of an Investigational New Drug application ("IND") (or a foreign equivalent) with respect to our product candidates. Even if these applications would be or have been filed with respect to our product candidates, the results of preclinical studies do not necessarily predict the results of clinical trials. Similarly, early stage clinical trials may not predict the results of later-stage clinical trials, including the safety and efficacy profiles of any particular product candidates. For example, the Phase 3 EYEGUARD-B trial of gevokizumab failed to achieve success on its primary endpoint measures.

In addition, there can be no assurance the design of our or our licensees' clinical trials will be focused on appropriate indications, patient populations, dosing regimens or other variables that will result in obtaining the desired efficacy data to support regulatory approval to commercialize the drug. Moreover, FDA officials or foreign regulatory agency officials may question the integrity of our data or otherwise subject our or our licensees' clinical trials to additional scrutiny when the clinical trials are conducted by principal investigators who serve, or previously served, as scientific advisors or consultants to us and receive cash compensation in connection with such services. Preclinical and clinical data can also be interpreted in different ways. Accordingly, FDA officials or officials from foreign regulatory authorities could interpret the data differently than we or our collaboration or development partners do, which could delay, limit or prevent regulatory approval.

Administering any of our product candidates may produce undesirable side effects, also known as adverse effects. Toxicities and adverse effects that we have observed in preclinical studies for some compounds in a particular research and development program may occur in preclinical studies or clinical trials of other compounds from the same program. Such toxicities or adverse effects could delay or prevent the filing of an IND (or a foreign equivalent) with respect to such product candidates or cause us to cease clinical trials with respect to any drug candidate. In clinical trials, administering any of our product candidates to humans may produce adverse effects. These adverse effects could interrupt, delay or halt clinical trials of our products and product candidates and could result in the FDA or other regulatory authorities denying approval of our product candidates for any or all targeted indications. The FDA, other regulatory authorities, our development partners or we may suspend or terminate clinical trials at any time. Even if one or more of our product candidates were approved for sale, the occurrence of even a limited number of toxicities or adverse effects when used in large populations may cause the FDA or other regulatory authorities to impose restrictions on, or stop, the further marketing of such drugs. Indications of potential adverse effects or toxicities that may occur in clinical trials and that we believe are not significant during the course of such clinical trials may actually turn out later to constitute serious adverse effects or toxicities when a drug has been used in large populations or for extended periods of time. Any failure or significant delay in completing preclinical studies or clinical trials for our product candidates, or in receiving and maintaining regulatory approval for the sale of any drugs resulting from our product candidates, may severely harm our reputation and business.

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

Developments by others may render our 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 may not be able to track development of competitive products, particularly at the early stages.

Positive or negative developments in connection with a potentially competing product may have an adverse impact on our ability to raise additional funding on acceptable terms. 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 product will fail, then investors may choose not to invest in us on terms we would accept or at all.

The examples below pertain to competitive events in the market, but are not intended to be representative of all existing competitive events.

We are developing X358, a fully human negative allosteric modulating insulin receptor antibody, as a novel treatment for non-drug-induced, endogenous hyperinsulinemic hypoglycemia (low blood glucose caused by excessive insulin produced by the body) disorders including CHI and hypoglycemia post gastric bypass. Certain other companies are developing products based on improved versions of glucagon, a hormone naturally secreted by the pancreas that counteracts the effects of insulin by raising blood glucose levels.

- Biodel Inc. is developing a formulation of glucagon designed to remain stable in solution for a longer period than existing commercial formulations. FDA and European Medicines Agency ("EMA") have granted orphan drug designation for Biodel's glucagon for the prevention of hypoglycemia in the CHI population.

- Eiger Biopharmaceuticals is developing exendin (9-39), a glucagon-like peptide 1 (GLP-1) antagonist, for the treatment of hypoglycemic episodes following gastric bypass surgery, as well as for CHI patients. FDA has granted orphan drug designation for exendin (9-39) for the treatment of congenital hyperinsulinemic hypoglycemia and other causes of hyperinsulinemic hypoglycemia in adults and children.

- Eli Lilly and Company and Locemia Solutions are in phase 3 testing of an intranasal glucagon treatment for severe hypoglycemia in people with diabetes treated with insulin.

- S-cubed Limited is developing a synthetic form of glucagon. It is expected to be given under the skin using a special infusion pump. EMA has granted orphan drug designation for S-cubed glucagon for the treatment of CHI patients.

- Xeris Pharmaceuticals is developing a soluble glucagon. The FDA and EMA have granted orphan drug designation for Xeris' soluble glucagon for the prevention of severe, persistent hypoglycemia in patients with CHI.

- Zealand Pharma A/S has a glucagon analog in late-stage development.

Our product candidates are monoclonal antibodies and are differentiated due to our expertise in the allosteric modulation of cellular receptors. Our product candidates currently are delivered by intravenous administration. We are developing subcutaneous versions to allow for at-home administration or administration in a physician's office, thereby reducing the potential that our targeted patient populations increase the demand on over-burdened infusion centers. However, physicians and patients may prefer daily oral dosing of potential competitor products to a longer-acting monoclonal antibody, which will impact the commercial value of X358.

We or our licensees may be unable to price our products effectively or obtain adequate reimbursement for sales of our products, which would prevent our products from becoming profitable.

If we or 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 products in which we have an ownership or royalty interest.

Even if products 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 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 collaboration and development 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, products, or services, and our competitors could commercialize our technologies, which could result in a decrease in our 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 us from using technology that is essential to our business.

If certain patents issued to others are upheld or if certain patent applications filed by others issue and are upheld, we 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 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. All of our employees have signed confidentiality agreements under which they have agreed not to use or disclose any of our proprietary information. Research and development contracts and relationships between us and our scientific consultants and potential customers 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 ability to develop or commercialize our products adversely by giving others a competitive advantage or by undermining our patent position.

Litigation regarding intellectual property 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. The cost to us of this litigation, even if resolved in our favor, could be substantial. Such litigation also could divert management’s attention and resources. If this litigation is resolved against us, our patents may be declared invalid, and we could be held liable for significant damages.

In addition, we may be subject to claims that we 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 from using these products, processes or services and adversely affecting our revenue.

Risks Related to Government Regulation

We may not obtain orphan drug exclusivity, or we may not receive the full benefit of orphan drug exclusivity even if we obtain such exclusivity.

The FDA has awarded orphan drug status for X358 for the treatment of CHI. Under the Orphan Drug Act, the first company to receive FDA approval for a drug for the designated orphan drug indication will obtain seven years of marketing exclusivity, during which time the FDA may not approve another company's application for the same drug for the same orphan indication unless the FDA concludes that the later drug is safer, more effective or makes a major contribution to patient care. In June 2016, the EMA granted Orphan Drug Designation to X358 for the treatment of CHI.

Even though we have obtained orphan drug designation for certain product candidates for certain indications and even if we obtain orphan drug designation for our future product candidates or for other indications, due to the uncertainties associated with developing pharmaceutical products, we or our licensees may not be the first to obtain marketing approval of our product candidates for any particular orphan indication, or we or our licensees may not obtain approval for an indication for which we have obtained orphan drug designation. Further, even if we or our licensees obtain orphan drug exclusivity for a product, that exclusivity may not protect the product effectively from competition because different drugs can be approved for the same indication. Orphan drug designation neither shortens the development time or regulatory review time of a drug, nor gives the drug any advantage in the regulatory review or approval process

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 we or our licensees receive regulatory approval for our product candidates, we or our licensees will be subject to ongoing regulatory oversight and review by the FDA and other regulatory entities. The FDA, the 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 a product may be withdrawn voluntarily by us 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 or 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 us 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.

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 impose 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; and state laws governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and 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.

Risks Related to Our Reliance on Third Parties

We and 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 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 may be delayed.

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

Our financial resources and our marketing experience and expertise are limited. Consequently, our ability to develop products successfully depends, to a large extent, upon securing the financial resources and marketing capabilities of third parties. For example, we have licensed our bacterial cell expression technology, a set of enabling technologies used to discover and screen, as well as develop and manufacture, recombinant antibodies and other proteins for commercial purposes, to over 60 companies.

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 significant.

Although we continue to evaluate additional strategic alliances and potential partnerships, we do not know whether or when any such alliances or partnerships will be entered into.

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

In December of 2015, we completed the sale of our manufacturing facility to Agenus and we are now completely reliant on third parties to produce material for preclinical work, clinical trials, and commercial product. Our licensees may similarly rely on third party manufacturers.

These 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 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 us or our licensees, may discontinue their business before the time required by us to successfully produce clinical and commercial supplies of our 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 product candidates or any failure of our contractors to maintain compliance with the applicable regulations and standards could increase costs, cause us to reduce revenue, make us or 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 product candidates, or cause any of our 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 license 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 the owners of the patent rights underlying the technologies that we license do not properly maintain or enforce those patents, our competitive position and business prospects could be harmed. They may determine not to pursue litigation against other companies that are infringing these patents, or they may pursue such litigation less aggressively than we would. 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.

For example, in connection with our dispositions, we have in the past and may in the future agree to accept equity securities of the licensee in payment of fees. The future value of these or any other shares we receive is subject both to market risks affecting our ability to realize the value of these shares and more generally to the business and other risks to which the issuer of these shares may be subject.

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, 2016, through March 14, 2017, the share price of our common stock has ranged from a high of $27.20 to a low of $3.96. Factors contributing to such volatility include:

- results of preclinical studies and clinical trials;
- information relating to the safety or efficacy of products or product candidates;
- developments regarding regulatory filings;
- our funding requirements and the terms of our financing arrangements;
- technological innovations or new indications for our therapeutic products and product candidates;
- introduction of new products or technologies by us or our competitors;
- sales and estimated or forecasted sales of products for which we receive royalties, if any;
- government regulations;
- developments in patent or other proprietary rights;

- quarterly variations in our results of operations and those of our competitors;
- failure to meet any guidance that we have previously provided regarding our anticipated results;
- changes in earnings estimates or recommendations by securities analysts;
- failure to meet securities analysts' estimates;
- our involvement in litigation and developments relating to such litigation;
- the number of shares issued and outstanding;
- the number of shares trading on an average trading day;
- announcements regarding other participants in the biotechnology and pharmaceutical industries; and
- market speculation regarding any of the above.

If we fail to meet continued listing standards of NASDAQ, our common stock may be delisted, which could have a material adverse effect on the liquidity of our common stock.

Our common stock is currently traded on the Nasdaq Global Market. The NASDAQ Stock Market LLC ("NASDAQ") has requirements that a company must meet in order to remain listed on NASDAQ.

We have in the past temporarily fallen out of compliance with NASDAQ listing standards and there can be no assurance that we will continue to meet NASDAQ listing requirements in the future. For example, on March 15, 2016, NASDAQ notified us that we were out of compliance with NASDAQ Listing Rule 5450(a)(1), requiring maintenance of a minimum bid price of $1.00 per share. In accordance with Nasdaq Listing Rule 5810(c)(3)(A), if during the 180 calendar days following the date of the notification, or prior to September 12, 2016, the closing bid price of our common stock was at or above $1.00 for a minimum of 10 consecutive business days, the Listing Qualifications Staff of NASDAQ (the "Staff") would provide us with written confirmation of compliance. We did not achieve compliance with the minimum bid price requirement, and on September 13, 2016, we received notice from the Staff that our securities were subject to delisting, based upon non-compliance with the minimum bid price requirement set forth in NASDAQ listing rules. On October 14, 2016, we effected a reverse split of shares of our common stock, and as a result regained compliance with NASDAQ listing requirements as of November 1, 2016. If future events cause our common stock to be delisted, the liquidity of our common stock would be adversely affected and the market price of our common stock could decrease.

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, including under our At Market Issuance Sales Agreement ("ATM") with Cowen and Company, LLC, 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 a manner we determine from time to time. 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 were issued and outstanding as of March 14 2017, which give other stockholders dividend, conversion, and liquidation rights, among other rights, which may be superior to the rights of holders of our common stock. In addition, we are authorized to issue, generally without stockholder approval, up to 277,333,332 shares of common stock, of which

7,544,076 were issued and outstanding as of March 14, 2017. 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, including under our ATM with Cowen and Company, LLC, 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 Securities and Exchange Commission (“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, would 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.

We are subject to foreign currency exchange rate risks.

We are subject to foreign currency exchange rate risks because substantially all of our revenues and operating expenses are paid in U.S. Dollars, but we incur certain expenses, as well as interest and principal obligations with respect to our loan from Servier, in Euros. To the extent the U.S. Dollar declines in value against the Euro, the effective cost of servicing our Euro-denominated debt will be higher. Changes in the exchange rate result in foreign currency gains or losses. There can be no assurance foreign currency fluctuations will not have a material adverse effect on our business, financial condition, liquidity or results of operations.

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.

Section 382 of the U.S. Internal Revenue Code of 1986, as amended, generally limits 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 (“IRS”) 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. As of December 31, 2016, 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. On February 16, 2017, we completed an equity financing for net proceeds of $24.9 million which may have potentially triggered an additional ownership change under Section 382. We will be analyzing the effects of the February 2017 financing; if such a change under Section 382 is deemed to have occurred, the use of our NOLs and tax attributes per year will be further limited.

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 product development and 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 relatively small biopharmaceutical company with limited resources, we may not be able to attract and retain qualified personnel.

Our success in developing marketable products and achieving a competitive position will depend, in part, on our ability to attract and retain qualified scientific and management personnel, particularly in areas requiring specific technical, scientific or medical expertise. After a series of restructuring activities and asset sales during 2016, we had 18 full-time employees as of March 14, 2017. In addition, there are seven employees who will terminate employment on either March 31, 2017 or June 30, 2017 in connection with the restructuring activities in December 2016. We may require additional experienced executive, accounting, research and development, 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 operations may suffer and we may be unable to implement our current initiatives or grow effectively.

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

Our principal operations are located in Northern California, including our corporate headquarters in Berkeley, 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 cyber−attacks, 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 cyber−attack 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 cyber-attacks 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, cyber-attacks 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. Cyber-attacks 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. Cyber-attacks 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.

We and certain of our officers and directors have been named as defendants in shareholder lawsuits. These 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.

On July 24, 2015, a purported securities class action lawsuit was filed in the United States District Court for the Northern District of California, captioned Markette v. XOMA Corp., et al. (Case No. 3:15-cv-3425) naming as defendants us and certain of our officers. The complaint asserts that all defendants violated Section 10(b) of the Exchange Act and SEC Rule 10b-5, by making materially false or misleading statements regarding our EYEGUARD-B study between November 6, 2014 and July 21, 2015. The plaintiff also alleges that Messrs. Varian and Rubin violated Section 20(a) of the Exchange Act. The plaintiff seeks class certification, an award of unspecified compensatory damages, an award of reasonable costs and expenses, including attorneys' fees, and other further relief as the Court may deem just and proper. On May 13, 2016, the Court appointed a lead plaintiff and lead counsel. The lead plaintiff filed an amended complaint on July 8, 2016 asserting the same claims and adding a former director as a defendant. On September 2, 2016, defendants filed a motion to dismiss with prejudice the amended complaint. Plaintiff filed his opposition to the motion to dismiss on October 7, 2016. Defendants filed a reply in support of their motion to dismiss on October 21, 2016. The judge in the case has advised that he will rule on the motion based on those pleadings, but has not yet issued a ruling. Based on a review of the allegations, management believes that the plaintiff's allegations are without merit, and intends to vigorously defend against the claims. Currently, we do not believe that the outcome of this matter will have a material adverse effect on our business or financial condition, although an unfavorable outcome could have a material adverse effect on our results of operations for the period in which such a loss is recognized. We cannot reasonably estimate the possible loss or range of loss that may arise from this lawsuit.

On October 1, 2015, a stockholder purporting to act on our behalf, filed a derivative lawsuit in the Superior Court of California for the County of Alameda, purportedly asserting claims on behalf of us against certain of our officers and the members of our Board of Directors, captioned Silva v. Scannon, et al. (Case No. RG15787990). The lawsuit asserts claims for breach of fiduciary duty, corporate waste and unjust enrichment based on the dissemination of allegedly false and misleading statements related to our EYEGUARD-B study. The plaintiff is seeking unspecified monetary damages and other relief, including reforms and improvements to our corporate governance and internal procedures. This action is currently stayed pending further developments in the securities class action. Management believes the allegations have no merit and intends to vigorously defend against the claims.

On November 16, and November 25, 2015, two derivative lawsuits were filed purportedly on our behalf in the United States District Court for the Northern District of California, captioned Fieser v. Van Ness, et al. (Case No. 4:15-CV-05236-HSG) and Csoka v. Varian, et al. (Case No. 3:15-cv-05429-SI), against certain of our officers and the members of our Board of Directors. The lawsuits assert claims for breach of fiduciary duty and other violations of law based on the dissemination of allegedly false and misleading statements related to the our EYEGUARD-B study. Plaintiffs seek unspecified monetary damages and other relief including reforms and improvements to our corporate governance and internal procedures. Both actions are currently stayed pending further developments in the securities class action. Management believes the allegations have no merit and intends to vigorously defend against the claims.

It is possible that additional suits will be filed, or allegations received from stockholders, with respect to these same or other matters and also naming us and/or our officers and directors as defendants. These and any other related 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. We currently are not able to estimate the possible cost to us from these lawsuits, as they are currently at an early stage, and we cannot be certain how long it may take to resolve these matters or the possible amount of any damages that we may be required to pay. We have not established any reserve for any potential liability relating to 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 the 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 the currently pending litigation and 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.

Item 1B. Unresolved Staff Comments
None.

Item 2. Properties
Our corporate headquarters and research laboratories are located in Berkeley and Emeryville, California. We currently lease two buildings that house our office space and research and development laboratories. Our building leases expire in the period from 2021 to 2023, and total minimum lease payments due from January 2017 until expiration of the leases is $21.4 million. We have the option to renew our lease agreements for up to two successive five-year periods.

Item 3. Legal Proceedings
On July 24, 2015, a purported securities class action lawsuit was filed in the United States District Court for the Northern District of California captioned Markette v. XOMA Corp., et al. (Case No. 3:15-cv-3425-HSG) against us, our Chief Executive Officer and our Chief Medical Officer. The complaint asserts that all defendants violated Section 10(b) the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and SEC Rule 10b-5, by making materially false or misleading statements regarding the Company's EYEGUARD-B study between November 6, 2014 and July 21, 2015. The plaintiff also alleges that Messrs. Varian and Rubin violated Section 20(a) of the Exchange Act. The plaintiff seeks class certification, an award of unspecified compensatory damages, an award of reasonable costs and expenses, including attorneys' fees, and other further relief as the Court may deem just and proper. On May 13, 2016, the Court appointed a lead plaintiff and lead counsel. The lead plaintiff filed an amended complaint on July 8, 2016 asserting the same claims and adding a former director as a defendant. On September 2, 2016, defendants filed a motion to dismiss with prejudice the amended complaint. Plaintiff filed his opposition to the motion to dismiss on October 7, 2016. Defendants filed a reply in support of their motion to dismiss on October 21, 2016. The judge in the case has advised that he will rule on the motion based on those pleadings, but has not yet issued a ruling. Based on a review of the allegations, the Company believes that the plaintiff's allegations are without merit, and intends to vigorously defend against the claims.

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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." All references to numbers of common shares and per-share information in this Annual Report have been adjusted retroactively to reflect the Company's 1-for-20 reverse stock split effective October 17, 2016. The following table sets forth the quarterly range of high and low reported sale prices of our common stock on NASDAQ for the periods indicated:

	Price Range	
	High	Low
2016		
First Quarter	$27.20	$13.80
Second Quarter	$19.00	$8.80
Third Quarter	$14.00	$8.80
Fourth Quarter	$9.60	$4.16
2015		
First Quarter	$86.60	$64.40
Second Quarter	$88.20	$58.40
Third Quarter	$98.60	$13.80
Fourth Quarter	$40.60	$18.00

On March 14, 2017, there were 216 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. In addition, our loan agreement with Hercules generally restricts the declaration and payment of cash dividends.

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, 2016, there were no unregistered sales of equity securities by us during the year ended December 31, 2016.

Performance Graph

The following graph compares the five-year cumulative total stockholder return for XOMA's common stock with the comparable cumulative return of certain indices. The graph assumes $100 invested on the same date in each of the indices. Returns of the company are not indicative of future performance.

This Section is not "soliciting material," is not deemed "filed" with the SEC and is not to be incorporated by reference in any filing of XOMA Corporation under the Securities Act, or the Exchange Act, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing.

As of December 31,	XOMA	Nasdaq Composite Index	Arca Biotechnology Index
2011	$100.00	$ 100.00	$ 100.00
2012	$208.70	$ 115.91	$ 141.74
2013	$585.22	$ 160.32	$ 213.52
2014	$312.17	$ 181.80	$ 315.10
2015	$115.65	$ 192.21	$ 349.45
2016	$18.35	$ 206.63	$ 281.74

Item 6. Selected Consolidated Financial Data

The following table contains our selected financial information including consolidated statement of operations and consolidated balance sheet data for the years 2012 through 2016. The consolidated statement of operations data for the years ended December 31, 2016, 2015 and 2014 and the consolidated balance sheet data as of December 31, 2016 and 2015 are derived from our audited consolidated financial statements included elsewhere in this Annual Report on Form 10-K. The consolidated statement of operations data for the years ended December 31, 2013 and 2012, and the consolidated balance sheet data as of December 31, 2014, 2013 and 2012 were derived from our audited consolidated financial statements that are not included in this Annual Report on Form 10-K. The selected financial information should be read in conjunction with Item 8: Financial Statements and Supplementary Data and Item 7: Management's Discussion and Analysis of Financial Condition and Results of Operations included in this Annual Report. The data set forth below is not necessarily indicative of the results of future operations. All references to number of common shares and per-share information have been adjusted retroactively to reflect XOMA's 1-for-20 reverse stock split that was effected on October 17, 2016.

	Year Ended December 31,				
	2016	2015	2014	2013	2012
	(In thousands, except per share amounts)				
Consolidated Statement of Operations Data					
Total revenues	$5,564	$55,447	$18,866	$35,451	$33,782
Research and development	44,234	70,852	80,748	74,851	68,467
Selling, general and administrative	18,322	20,620	19,866	18,477	16,865
Restructuring costs	4,566	3,699	84	328	5,074
Loss from operations	(61,558)	(39,724)	(81,832)	(58,205)	(56,624)
Other income (expense), net [1]	8,028	19,118	43,531	(65,867)	(14,515)
Loss before taxes	(53,530)	(20,606)	(38,301)	(124,072)	(71,139)
Income tax benefit	—	—	—	14	74
Net loss	$(53,530)	$(20,606)	$(38,301)	$(124,058)	$(71,065)
Basic net loss per share of common stock	$(8.89)	$(3.50)	$(7.13)	$(28.54)	$(21.99)
Diluted net loss per share of common stock	$(8.89)	$(3.50)	$(13.49)	$(28.54)	$(21.99)
Shares used in computing basic net loss per share of common stock	6,021	5,890	5,372	4,347	3,231
Shares used in computing diluted net loss per share of common stock	6,021	5,890	5,767	4,347	3,231

	December 31,				
	2016	2015	2014	2013	2012
	(In thousands)				
Consolidated Balance Sheet Data					
Cash and cash equivalents	$25,742	$65,767	$78,445	$101,659	$45,345
Marketable securities	$—	$496	$—	$19,990	$39,987
Current assets	$27,160	$72,219	$83,613	$127,060	$95,837
Working capital (deficiency)	$(5,346)	$48,924	$47,367	$97,415	$72,004
Total assets	$28,677	$74,880	$89,402	$134,782	$105,676
Current liabilities	$32,506	$23,295	$36,246	$29,645	$23,833

Long-term liabilities [2]	$25,381	$53,894	$50,057	$109,124	$60,376
Accumulated deficit	$(1,193,613)	$(1,140,083)	$(1,119,477)	$(1,081,176)	$(957,118)
Total stockholders' (deficit) equity	$(47,210)	$(2,309)	$3,099	$(3,987)	$21,467

We have paid no dividends in the past five years.

(1) 2016, 2015, 2014, 2013, and 2012 include $10.5 million, $17.8 million, $45.8 million, ($61.0) million and ($9.2) million, respectively, related to the revaluation of contingent warrant liabilities issued in connection with equity financings in June 2009, February 2010, March 2012 and December 2014. All outstanding warrants issued in June 2009, February 2010 and December 2014 expired in June 2014, February 2015 and December 2016, respectively.

(2) 2016, 2015, 2014, 2013, and 2012 include zero, $10.5 million, $31.8 million, $69.9 million and $15.0 million, respectively, related to contingent warrant liabilities in connection with equity financings in June 2009, February 2010, March 2012 and December 2014. All outstanding warrants issued in June 2009, February 2010 and December 2014 expired in June 2014, February 2015 and December 2016, respectively. The balance in 2016, 2015, 2014, 2013, and 2012 includes total non-current interest bearing obligations equal to $25.3 million, $42.8 million, $16.3 million, $35.2 million and $37.7 million, respectively

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

Overview

XOMA Corporation, ("XOMA"), a Delaware corporation, has a long history of discovering and developing innovative therapeutics derived from its unique platform of antibody technologies. We have typically sought to license these therapeutic assets to our licensees who take on the responsibilities of later stage development, approval and commercialization. In addition, we have licensed our antibody technologies on a non-exclusive basis to other companies who desire to access this platform for their own discovery efforts.

In 2016, we dedicated our research and development efforts to advancing our portfolio of product candidates that have the potential to treat a variety of endocrine diseases, including advancing the development of X358 for the treatment of congenital hyperinsulinism ("CHI") and hypoglycemia in hyperinsulinemic patients post-bariatric surgery ("PBS"). We are evolving our strategy to be focused on developing or acquiring revenue generating assets and coupling them with a lean corporate infrastructure. Our goal is to create a sustainably profitable business and generate meaningful value for our stockholders. Since our business model is based on the goal of out-licensing to other pharmaceutical companies for them to commercialize and market any resultant products, we expect a significant portion of our future revenue will be based on payments we may receive from our licensees.

Our asset base includes antibodies with unique properties including several that interact at allosteric sites on a specific protein rather than the orthosteric, or active, sites. These compounds are designed to either enhance or diminish the target protein's activity as desired. We believe allosteric-modulating antibodies may be more selective or offer a safety advantage in certain disease indications when compared to more traditional modes of action.

Significant Developments in 2016

X358

- In September 2016, the initial data from our ongoing Phase 2 X358 proof-of-concept ("POC") studies indicated that X358 is exhibiting an inhibition on insulin signaling. These studies, initiated in April 2016, are evaluating the safety and clinical pharmacology of X358 in patients with CHI and in patients who experience dangerously low blood glucose levels (hypoglycemia) after undergoing gastric bypass surgery. In January 2017, we announced that we have established POC for X358 in CHI and hypoglycemia in hyperinsulinemic patients PBS. The CHI acute studies have met their objectives of establishing initial safety and X358 POC in CHI patients aged 12 and up across several dosing levels. The PBS study has completed dosing in the single-dose cohorts and has also met its objectives. In February 2017, we initiated a multi-dose study in PBS.
- In October 2016, the United Kingdom's Medicines and Healthcare Products Regulatory Agency ("MHRA") accepted in principle our proposal to initiate a multi-dose Phase 2 clinical study of X358 in children older than two who are diagnosed with CHI and the study was approved by the MHRA in December 2016. This multi-dose study is under planning in Q1 2017 and the site is expected to be ready for first dosing in the UK in Q2 2017. Submissions of this study are underway in Germany, Denmark and Israel as well.

Sale Future Revenue Streams

- On December 21, 2016, we entered into two Royalty Interest Acquisition Agreements (together, the "Acquisition Agreements") with HealthCare Royalty Partners II, L.P. ("HCRP"). Under the first 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 Wyeth Pharmaceuticals (now Pfizer, Inc.) for an upfront cash payment of $6.5 million, plus potential additional payments totaling $4.0 million in the event that three specified net sales milestones are met by Pfizer in 2017, 2018 and 2019. Under the second Acquisition Agreement, we 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.

Amendment to the Hercules Loan Agreement

- On December 21, 2016, we entered into Amendment No. 1 (the "Amendment") to the Hercules Loan Agreement. Under the Amendment, Hercules agreed to release its security interest in the assets subject to the Acquisition Agreements. In turn, in January of 2017, we paid $10.0 million of the outstanding principal balance owed to Hercules. After payment of this amount, the outstanding principal balance under the Hercules Loan Agreement was reduced to $6.9 million.

Restructuring

- In December 2016, we effected a restructuring of XOMA's business. The restructuring included a reduction-in-force in which we reduced our headcount by 57 employees. The restructuring was based on our decision to focus our efforts on clinical development, with an initial focus on advancing our X358 clinical program. Subsequent to the restructuring in December 2016, we have revised our strategy to prioritize out-licensing activities.

In addition, effective December 21, 2016, John Varian retired from his position as Chief Executive Officer and was replaced in that position by Jim Neal. Mr. Varian is entitled to a severance payment and payments for benefits and outplacement services pursuant to the terms of his retention benefit agreement.

Sale of Biodefense Assets

- In March 2016, in connection with the November 4, 2015 asset purchase agreement with Nanotherapeutics, Inc. ("Nanotherapeutics"), we effected the novation of our contract with the National Institute of Allergy and Infectious Diseases ("NIAID"), and completed the transfer of certain related third-party service contracts and materials, and the grant of exclusive and non-exclusive licenses for certain of our patents and general know-how to Nanotherapeutics. We are eligible to receive contingent consideration up to a maximum of $4.5 million in cash and 23,008 shares of common stock of Nanotherapeutics, based upon Nanotherapeutics achieving certain specified future operating objectives. In addition, we are eligible to receive 15% royalties on net sales of any future Nanotherapeutics products covered by or involving the related patents or know-how. In February 2017, we executed an Amendment and Restatement to both the asset purchase agreement and license agreement primarily to (i) remove the issuance of 23,008 shares of common stock of Nanotherapeutics under the asset purchase agreement, and (ii) revise the payment schedule related to the timing of the $4.5 million cash payments due under the license agreement. Of the $4.5 million, $3.0 million is contingent upon Nanotherapeutics achieving certain specified future operating objectives.

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, research and development activities warrant liabilities 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

License and Collaborative Fees

Revenue from non-refundable license, technology access or other payments under license and collaborative agreements where we have a continuing obligation to perform is recognized as revenue over the estimated period of the continuing performance obligation. We estimate the performance period at the inception of the arrangement and re-evaluate it each reporting period. Management makes its best estimate of the period over which it expects to fulfill the performance obligations, which may include clinical development activities. Given the uncertainties of research and development collaborations, significant judgment is required to determine the duration of the performance period. This re-evaluation may shorten or lengthen the period over which the remaining revenue is recognized. Changes to these estimates are recorded on a prospective basis.

Our license and collaboration agreements with certain third parties also provide for contingent payments to be paid to us based solely upon the performance of the partner. For such contingent payments, we recognize the payments as revenue upon completion of the milestone event, once confirmation is received from the third party, provided that collection is reasonably assured and the other revenue recognition criteria have been satisfied.

Contract Revenue

Contract revenue for research and development involves providing research and development services to collaborative partners or others. Cost reimbursement revenue under collaborative agreements is recognized as the related research and development costs are incurred, as provided for under the terms of these agreements. Revenue for certain contracts is accounted for by a proportional performance, or output-based, method where performance is based on estimated progress toward elements defined in the contract. The amount of contract revenue and related costs recognized in each accounting period are based on estimates of the proportional performance during the period. Adjustments to estimates based on actual performance are recognized on a prospective basis and do not result in reversal of revenue should the estimate to complete be extended.

In addition, revenue related to certain research and development contracts is billed based on actual hours incurred by XOMA related to the contract, multiplied by full-time equivalent (“FTE”) rates plus a mark-up. The FTE rates are developed based on our best estimates of labor, materials and overhead costs. For certain contracts, such as our government contracts, the FTE rates are agreed upon at the beginning of the contract and are subject to review or audit by the contracting party at any time. Under our contracts with NIAID, a part of the National Institute of Health (“NIH”), we bill using NIH provisional rates and thus are subject to future audits at the discretion of NIAID’s contracting office. These audits can result in adjustments to previously reported revenue.

In 2011, the NIH conducted an audit of our actual data under two contracts for the period from January 1, 2007, through December 31, 2009, and developed final billing rates for this period. As a result, we retroactively applied these NIH rates to the invoices from this period, which resulted in an increase in revenue of $3.1 million from the NIH, excluding $0.9 million billed to the NIH in 2010 as a result of a comparison of 2009 calculated costs incurred and costs billed to the government under provisional rates. Final rates were settled for one contract resulting in the recognition of revenue of $2.0 million in 2012. In 2014, upon completion of a NIAID review of hours and external expenses for the period spanning from 2008 to 2013, we agreed to exclude certain hours and external expense resulting in a $1.8 million adjustment, which reduced deferred revenue and accounts receivable. The remaining deferred revenue in connection with the 2011 NIH rate audit will be recognized upon negotiation with and approval by NIH.

Upfront fees associated with contract revenue are recorded as license and collaborative fees and are recognized ratably over the expected benefit period under the arrangement. Given the uncertainties of research and development collaborations, significant judgment is required to determine the duration of the arrangement.

Sale of Future Revenue Streams

In December 2016, we sold our rights to receive milestone payments and royalties on future sales of products under our license agreement with Pfizer and our right to receive royalties on future sales of products under our license agreement with Dyax Corp. to HCRP. In the circumstance where we have sold our rights to future milestones and royalties under a license agreement and also maintain limited continuing involvement in the arrangement (but not significant continuing involvement in the generation of the cash flows that are due to the purchaser), we defer recognition of the proceeds we receive for the milestone or royalty stream and recognize such deferred revenues as contract and other revenue over the life of the underlying license agreement. We recognize this revenue under the "units-of-revenue" method. Under this 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 our 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 we recognize in any particular period.

Research and Development Expenses

We expense research and development costs as incurred. Research and development expenses consist of direct costs such as salaries and related personnel costs, and material and supply costs, and research-related allocated overhead costs, such as facilities costs. In addition, research and development expenses include costs related to clinical trials. From time to time, research and development expenses may include up-front fees and milestones paid to collaborative partners for the purchase of rights to in-process research and development. Such amounts are expensed as incurred.

Our accrual for clinical trials is based on estimates of the services received and efforts expended under contracts with clinical trial centers and clinical research organizations. Payments under the contracts depend on factors such as the achievement of certain events, successful enrollment of patients, and completion of portions of the clinical trial or similar conditions. We may terminate these contracts upon written notice and we are generally only liable for actual effort expended by the organizations to the date of termination, although in certain instances we may be further responsible for termination fees and penalties. We make estimates of our accrued expenses as of each balance sheet date based on the facts and circumstances known to us at that time. Expenses resulting from clinical trials are recorded when incurred based, in part, on estimates as to the status of the various trials. There have been no material adjustments to our prior period accrued estimates for clinical trial activities through December 31, 2016.

Biopharmaceutical development includes a series of steps, including in vitro and in vivo preclinical testing, and Phase 1, 2 and 3 clinical studies in humans. Each of these steps is typically more expensive than the previous step, but actual timing and the cost to us depends on the product being tested, the nature of the potential disease indication and the terms of any collaborative or development arrangements with other companies or entities. After successful conclusion of all of these steps, regulatory filings for approval to market the products must be completed, including approval of manufacturing processes and facilities for the product.

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 and is recognized on a straight-line basis over the award's vesting period, assuming appropriate forfeiture rates. 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, expected volatility, and risk-free interest rate. Further, the forfeiture rate also impacts the amount of aggregate compensation. 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. To establish an estimate of forfeiture rate, we consider our historical experience of option forfeitures and terminations. The risk-free rate is based on the yield available on United States Treasury zero-coupon issues. 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. Stock-based compensation expense is recognized ratably over the requisite service period. 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.

Warrants

We have issued warrants to purchase shares of our common stock in connection with financing activities. We account for some of these warrants as a liability at estimated fair value and others as equity at estimated fair value. The estimated fair value of the outstanding warrants is estimated using the Black-Scholes Model. The Black-Scholes Model requires inputs, such as the expected term of the warrants, expected volatility and risk-free interest rate. These inputs are subjective and require significant analysis and judgment to develop. For the estimate of the expected term, we use the full remaining contractual term of the warrant. We determine the expected volatility based on the historical stock price volatility of XOMA's underlying stock. The assumptions associated with contingent warrant liabilities are reviewed each reporting period and changes in the estimated fair value of these contingent warrant liabilities are

recognized as gain or loss in the revaluation of contingent warrant liabilities line in the consolidated statement of comprehensive loss.

Results of Operations

Revenues

Total revenues for the years ended December 31, 2016, 2015, and 2014, were as follows (in thousands):

	Year Ended December 31,			2015-2016 Change	2014-2015 Change
	2016	2015	2014		
License and collaborative fees	$3,296	$49,064	$5,683	$ (45,768)	$ 43,381
Contract and other	$2,268	6,383	13,183	$ (4,115)	(6,800)
Total revenues	$5,564	$55,447	$18,866	$ (49,883)	$ 36,581

License and Collaborative Fees

License and collaborative fees include fees and milestone payments related to the out-licensing of our product candidates and technologies. The primary components of license and collaboration fees in 2016 were $2.0 million in upfront and milestone payments relating to various out-licensing arrangements, $0.7 million in annual maintenance fees related to various out-licensing arrangements and $0.6 million in revenue recognized related to the collaboration agreement with Servier, which was terminated in March 2016. The $2.0 million of upfront and milestone payments included a $1.5 million fee for a phage display library license delivered during the first quarter of 2016.

The primary components of license and collaboration fees in 2015 were $46.3 million in upfront and milestone payments relating to various out-licensing arrangements, $1.6 million in annual maintenance fees relating to various out-licensing arrangements and $1.2 million in revenue recognized related to the loan agreement with Servier. The $46.3 million included $37.0 million upfront payment from Novartis, $5.0 million upfront payment from Novo Nordisk and $3.8 million payment from Pfizer.

The primary components of license and collaboration fees in 2014 were $3.0 million in milestone payments relating to various out-licensing arrangements, $1.9 million in revenue recognized related to the loan agreement with Servier and $0.8 million in upfront fees and annual maintenance fees relating to various out-licensing arrangements.

Contract and Other Revenues

Contract and other revenues include agreements where we have provided contracted research and development services to our contract and collaboration partners, including Servier and NIAID. Contract and other revenues also include royalties. The following table shows the activity in contract and other revenues for the years ended December 31, 2016, 2015, and 2014 (in thousands):

	Year Ended December 31,			2015-2016	2014-2015
	2016	2015	2014	Change	Change
NIAID	$1,082	$5,084	$9,565	$ (4,002)	$ (4,481)
Servier	586	1,178	3,523	(592)	(2,345)
Royalties and other	600	121	95	479	26
Total contract and other revenues	$2,268	$6,383	$13,183	$ (4,115)	$ (6,800)

The 2016 decrease in contract and other revenues, as compared with 2015 was primarily due to the novation of our NIAID contract to Nanotherapeutics in March 2016, discontinuation of the gevokizumab studies under our collaboration agreement with Servier in the third quarter of 2015 and the termination of the collaboration agreement with Servier in March 2016.

The 2015 decrease in contract and other revenues, as compared with 2014, was primarily due to reduced activity under our existing NIAID contracts and decreased reimbursements from Servier under our collaboration agreement due to the discontinuation of the gevokizumab studies under our collaboration agreement with Servier in the third quarter of 2015.

The generation of future revenues related to license, milestone, and contract revenues 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 expenses were $44.2 million in 2016, compared with $70.9 million in 2015 and $80.7 million in 2014. The decrease of $26.7 million in 2016, as compared with 2015, was primarily due to a decrease of $13.7 million in salaries and related expenses, a decrease of $6.8 million in clinical trial costs, a decrease of $2.2 million in consulting services due to the termination of the EYEGUARD global Phase 3 program in the third quarter of 2015 and gevokizumab in pyoderma gangrenosum (“PG”) global Phase 3 program in the first quarter of 2016, and a decrease of $0.8 million in depreciation and facility expenses due to the sale of our manufacturing facility to Agenus in December 2015. The decrease of $9.8 million in 2015, as compared with 2014, was primarily due to a decrease of $3.1 million in salaries and related expenses, a decrease of $3.5 million in internal and external manufacturing costs, a decrease of $1.9 million in clinical trial costs related to spending on our erosive osteoarthritis of the hand studies in 2014, and a decrease of $1.1 million in research and development materials costs.

Salaries and related personnel costs are a significant component of research and development expenses. We recorded $15.0 million in research and development salaries and employee-related expenses in 2016, compared with $28.7 million in 2015 and $31.8 million in 2014. Included in these expenses for 2016 were $11.2 million for salaries and benefits, $1.0 million for bonus expense and $2.8 million for stock-based compensation, which is a non-cash expense. The decrease of $13.7 million in 2016, as compared with 2015, was primarily due to a decrease of $10.6 million in salaries and benefits costs due to fewer employees resulting from our 2015 restructuring activities, a decrease of $0.9 million in bonus expense and a decrease of $2.2 million in stock-based compensation.

We recorded $28.7 million in research and development salaries and employee-related expenses in 2015, compared with $31.8 million in 2014. Included in these expenses for 2015 were $21.8 million for salaries and benefits, $1.9 million for bonus expense and $5.0 million for stock-based compensation, which is a non-cash expense. The decrease of $3.1 million in 2015, as compared with 2014, was primarily due to a decrease of $2.6 million in salaries and benefits and a decrease of $0.5 million in stock-based compensation. The decrease in stock-based compensation in 2015, included $0.8 million related to the reversal of expense for forfeitures of stock awards related to our restructuring activities in the second half of 2015.

Our research and development activities can be divided into earlier-stage programs and later-stage programs. Earlier-stage programs include molecular biology, process development, pilot-scale production and preclinical testing. Later-stage programs include clinical testing, regulatory affairs and manufacturing clinical supplies. The costs associated with these programs are summarized below (in thousands):

	Year Ended December 31,		
	2016	2015	2014
Earlier stage programs	$11,834	$39,495	$28,327
Later stage programs	32,400	31,357	52,421
Total	$44,234	$70,852	$80,748

Our research and development activities also can be divided into those related to our internal projects and those projects related to collaborative and contract arrangements. The costs related to internal projects versus collaborative and contract arrangements are summarized (in thousands):

	Year Ended December 31,		
	2016	2015	2014
Internal projects	$42,845	$50,206	$51,281
Collaborative and contract arrangements	1,389	20,646	29,467
Total	$44,234	$70,852	$80,748

In 2016, X358, for which we incurred the largest amount of expense, accounted for between 50% and 60% of our total research and development expenses. The gevokizumab program and our endocrine research-stage programs each accounted for between 10% and 20% of our total research and development expenses. Each of our remaining development programs accounted for less than 10% of our total research and development.

In 2015, the gevokizumab program, for which we incurred the largest amount of expense, accounted for more than 40% but less than 50% of our total research and development expenses. A second development program, XMet, accounted for more than 30% but less than 40% of our total research and development expenses. All remaining development programs accounted for less than 10% of our total research and development.

In 2014, the gevokizumab program, for which we incurred the largest amount of expense, accounted for more than 40% but less than 50% of our total research and development expenses. A second development program, XMet, accounted for more than 10% but less than 20% of our total research and development expenses and a third development program, NIAID, accounted for more than 10% but less than 20% of our total research and development expenses.

We expect our research and development spending in 2017 will be reduced as compared with 2016 levels due to our 2016 restructuring activities and further research and development reductions planned for 2017.

Selling, General and Administrative Expenses

Selling, general and administrative expenses include salaries and related personnel costs, facilities cost and professional fees. In 2016, selling, general and administrative expenses were $18.3 million compared with $20.6 million in 2015 and $19.9 million in 2014. The decrease of $2.3 million in 2016 as compared with 2015 was primarily due to a $2.4 million decrease in salaries and related personnel costs due to fewer employees resulting from our 2015 restructuring activities, of which $0.5 million was a decrease in stock-based compensation, which is a non-cash expense.

The increase of $0.7 million in 2015 as compared with 2014 was primarily due to a $1.5 million increase in consulting services, primarily related to our out-licensing activities and a $1.0 million increase in legal fees, partially offset by a $0.5 million decrease in stock-based compensation, which is a non-cash expense and a $2.0 million decrease in salaries and related personnel costs. The decrease in stock-based compensation for the year ended December 31, 2015 included $0.7 million related to the reversal of expense for forfeitures of stock awards related to our restructuring activities in the second half of 2015.

We expect selling, general and administrative expenses in 2017 to be reduced as compared to 2016 levels due to our 2016 restructuring activities.

Restructuring and Other Charges

On December 21, 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. Subsequent to the December 2016 restructuring action, we have revised our strategy to prioritize out-licensing activities. During the year ended December 31, 2016, we recorded a charge of $3.8 million related to severance, other termination benefits and outplacement services. In addition, we recognized an additional restructuring charge of $0.6 million in stock-based compensation resulting from the acceleration of vesting of stock awards granted to a former executive under his retention benefit agreement. In connection with this restructuring, we recorded an asset impairment charge of $0.2 million for leasehold improvements that have no future use. There were no impairment charges recognized during the years ended December 31, 2015 and 2014.

On July 22, 2015, we announced the Phase 3 EYEGUARD-B study of gevokizumab in patients with Behçet’s disease uveitis, run by Servier, did not meet the primary endpoint of time to first acute ocular exacerbation. In August 2015, we announced our intention to end the EYEGUARD global Phase 3 program. On August 21, 2015, in connection with our efforts to lower operating expenses and preserve capital while continuing to focus on our endocrine product pipeline, we implemented a restructuring plan that included a workforce reduction resulting in the termination of 52 employees during the second half of 2015. During the years ended December 31, 2016 and 2015, we recorded a credit of $32,000 and a charge of $2.9 million, respectively, related to severance, other termination benefits and outplacement services. In addition, we recognized additional restructuring charges of $29,000 and $0.8 million in contract termination costs in the years ended December 31, 2016 and 2015, respectively, which primarily include costs in connection with the discontinuation of the EYEGUARD studies.

In 2014, we recorded restructuring charges of $0.1 million for facility costs related to restructuring activities initiated in 2012.

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, 2016, 2015, and 2014 (in thousands):

	Year Ended December 31,			2015-2016 Change	2014-2015 Change
	2016	2015	2014		
Hercules loan	$2,628	$2,223	$—	$ 405	$ 2,223
Servier loan	892	1,083	2,330	(191)	(1,247)
GECC term loan	—	548	1,638	(548)	(1,090)
Novartis note	405	329	312	76	17
Other	21	11	23	10	(12)
Total interest expense	$3,946	$4,194	$4,303	$ (248)	$ (109)

Interest expense related to the Servier loan and General Electric Capital Corporation ("GECC") term loan decreased by $0.2 million and $0.5 million, respectively in 2016, compared with 2015. The decrease was due to the payment of €3.0 million in principal under the Servier loan in January 2016 and the extinguishment of the GECC term loan in February 2015. This decrease was partially offset by an increase of $0.4 million in interest expense due under our term loan with Hercules Technology Growth Capital, Inc. ("Hercules") that was entered into in February 2015.

Interest expense related to the Servier loan and GECC term loan decreased by $1.2 million and $1.1 million, respectively, in 2015, compared with 2014. The decrease was due to the $1.9 million balance of imputed interest remaining at the time the Servier loan was amended in January 2015 now being amortized over the extended term of the loan and the extinguishment of the GECC term loan in February 2015. This decrease was partially offset by an increase of $2.2 million in interest expense due under our $20.0 million term loan with Hercules in February 2015. A portion of the proceeds from the Hercules Term Loan was used to repay our outstanding loan with GECC and we recorded a loss of $0.4 million upon the extinguishment of the GECC term loan.

We expect interest expense during 2017 to decrease as compared with 2016 due to the decrease in the principal balances of the Hercules and Servier loans.

Other Income, Net

The following table shows the activity in other income, net for the years ended December 31, 2016, 2015, and 2014 (in thousands):

	Year Ended December 31,			2015-2016 Change	2014-2015 Change
	2016	2015	2014		
Other income, net					
Gain on sale of business	$—	3,505	$—	$ (3,505)	$ 3,505
Unrealized foreign exchange gain	489	1,870	2,447	(1,381)	(577)
Sublease income	398	—	—	398	—
Loss on impairment of investment	(171)	—	—	(171)	—
Other	794	125	(386)	669	511
Total other income, net	$1,510	$5,500	$2,061	$ (3,990)	$ 3,439

Unrealized foreign exchange gains for the years ended December 31, 2016, 2015, and 2014 are primarily related to the re-measurement of the Servier loan. The sublease income in 2016 is related to the sublease arrangements executed with Agenus in December 2015 and Nanotherapeutics in March 2016. In 2016, we recognized an other-than-temporary impairment of $0.2 million related to a non-marketable cost method investment that we determined was impaired. Other income in 2016 primarily consist of $0.4 million generated from our transition service agreements with Agenus and Nanotherapeutics. The gain on sale of business for the year ended December 31, 2015 is related to the $3.5 million gain recognized from the sale of our pilot scale manufacturing facility, including certain equipment, to Agenus in 2015. We believe that the assets related to the manufacturing facility and certain other assets sold to Agenus include all key inputs and processes necessary to generate output from a market participant's

perspective. Accordingly, we have determined that such assets qualify as a business.

Revaluation of Contingent Warrant Liabilities

We have issued warrants that contain provisions that are contingent on the occurrence of a change in control, which could conditionally obligate us to repurchase the warrants for cash in an amount equal to their estimated fair value using the Black-Scholes Model on the date of such change in control. Due to these provisions, we account for the warrants issued as a liability at estimated fair value. In addition, the estimated liability related to the warrants is revalued at each reporting period until the earlier of the exercise of the warrants, at which time the liability will be reclassified to stockholders' equity at its then estimated fair value, or expiration of the warrants.

We revalued the March 2012 warrants at December 31, 2016 using the Black-Scholes Model and recorded a $7.5 million reduction in the estimated fair value as a gain on the revaluation of contingent warrant liabilities line of our consolidated statement of comprehensive loss for the year ended December 31, 2016. The decrease in the estimated fair value of the warrants is primarily due to the decrease in the market price of our common stock at December 31, 2016 as compared to December 31, 2015. We revalued the warrants at December 31, 2015 and 2014 and recorded a $15.6 million and a $39.5 million reduction in the estimated fair value in 2015 and 2014, respectively, as gains on the revaluation of contingent warrant liabilities line of our consolidated statements of comprehensive loss for the years ended December 31, 2015 and 2014.

The December 2014 warrants expired in December 2016. During the year ended December 31, 2016, we revalued the December 2014 warrants using the Black-Scholes Model and recorded a $3.0 million reduction in the estimated fair value as a gain on the revaluation of contingent warrant liabilities line of our consolidated statement of comprehensive loss. The decrease in the estimated fair value of the warrants is primarily due to the decrease in the market price of our common stock during 2016 as compared to December 31, 2015. We revalued the warrants at December 31, 2015 and 2014 and recorded a $2.2 million and a $5.1 million reduction in the estimated fair value in 2015 and 2014, respectively, as gains on the revaluation of contingent warrant liabilities line of our consolidated statements of comprehensive loss for the years ended December 31, 2015 and 2014.

The activity during the year ended December 31, 2014 also included the change in estimated fair value for the February 2010 warrants that expired in February 2015. We revalued the warrants at December 31, 2014 using the Black-Scholes Model and recorded a $1.0 million reduction in the estimated fair value as a gain on the revaluation of contingent warrant liabilities line of our consolidated statement of comprehensive loss for the year ended December 31, 2014.

Liquidity and Capital Resources

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

	December 31,		
	2016	2015	Change
Cash and cash equivalents	$25,742	$65,767	$(40,025)
Marketable securities	$—	$496	$(496)
Working (deficit) capital	$(5,346)	$48,924	$(54,270)

	Year Ended December 31,			2015-2016	2014-2015
	2016	2015	2014	Change	Change
Net cash used in operating activities	$(33,689)	$(30,892)	$(78,282)	$(2,797)	$47,390
Net cash provided by investing activities	612	4,450	19,675	(3,838)	(15,225)
Net cash (used in) provided by financing activities	(6,942)	13,801	35,560	(20,743)	(21,759)
Effect of exchange rate changes on cash	(6)	(37)	(167)	31	130
Net decrease in cash and cash equivalents	$(40,025)	$(12,678)	$(23,214)	$(27,347)	$10,536

Cash Used in Operating Activities

The increase in net cash used in operating activities in 2016 as compared to 2015 was primarily due to lower cash received from revenue sources in 2016 as compared with 2015. This increase was partially offset by lower salaries and related costs resulting from our 2015 restructuring activities combined with decreased research and development spending related to manufacturing and clinical trial costs primarily due to the discontinuation of the gevokizumab studies under our collaboration agreement with Servier in the third quarter of 2015 and the termination of the collaboration agreement with Servier in March 2016. Also contributing to the decrease in clinical trial costs was the termination of the gevokizumab PG global Phase 3 program in March 2016.

The decrease in net cash used in operating activities in 2015 as compared to 2014 was due to increased licensing fee revenue, including the $37.0 million upfront fee from Novartis, combined with decreased R&D spending related to internal and external manufacturing costs and a decrease in clinical trial costs primarily resulting from the completion in 2014 of our Phase 2 study in EOA.

Cash Provided by Investing Activities

Net cash provided by investing activities for the year ended December 31, 2016 was primarily related to proceeds from the sale of marketable securities of $0.6 million.

Net cash provided by investing activities for the year ended December 31, 2015 was primarily related to proceeds from the sale of our manufacturing facility of $4.9 million, partially offset by $0.4 million in purchases of property and equipment.

Net cash provided by investing activities for the year ended December 31, 2014 was primarily due to the $20.0 million in proceeds from maturities of short-term investments, partially offset by $0.3 million in purchases of property and equipment.

Cash (Used in) Provided by Financing Activities

Net cash used in financing activities for the year ended December 31, 2016 was primarily related to $6.9 million of principal payments on our loans with Servier and Hercules.

Net cash provided by financing activities for the year ended December 31, 2015 was primarily related to proceeds from the Hercules Term Loan of $20.0 million and proceeds from the issuance of common stock of $0.5 million. These cash inflows were partially offset by $6.1 million of principal payments on the GECC Term Loan, and payment of debt issuance costs of $0.5 million on the Hercules Term Loan.

Net cash provided by financing activities for the year ended December 31, 2014 was primarily related to net proceeds received from the issuance of common stock of $37.7 million, net of offering expenses, from the December 2014 registered direct offering, and $3.7 million from employee stock purchases. These cash inflows were partially offset by $5.9 million of principal payments on our loans with GECC and Novartis.

ATM Agreement

On November 12, 2015, we entered into an At Market Issuance Sales Agreement (the “2015 ATM Agreement”) with Cowen and Company, LLC (“Cowen”), under which we may offer and sell from time to time at our sole discretion shares of our common stock through Cowen as our sales agent, in an aggregate amount not to exceed the amount that can be sold under our registration statement on Form S-3 (File No. 333-201882) filed with the SEC on the same date. 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, on any other existing trading market for our common stock or to or through a market maker. Cowen also may sell the shares in privately negotiated transactions, subject to our prior approval. We 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. Offering costs, consisting of legal, accounting, and filing fees, incurred in connection with the 2015 ATM Agreement are capitalized. The capitalized offering costs will be offset against proceeds from the sale of common stock under this agreement. In the event the offering is terminated, all capitalized offering costs will be expensed. As of December 31, 2016, $0.2 million of offering costs were capitalized, which are included in prepaid expenses and other current assets in the consolidated balance sheet. For the year ended December 31, 2016, we sold 10,365 shares of common stock under this agreement for aggregate gross proceeds of $56,000. Total offering costs of $56,000 were offset against the proceeds upon sale of common stock.

Hercules Term Loan

The Company and Hercules entered into the Hercules Loan Agreement (“Hercules Term Loan”) on February 27, 2015, under which we borrowed $20.0 million. The Hercules Term Loan has a variable interest rate that is the greater of either (i) 9.40% plus the prime rate as reported from time to time in The Wall Street Journal minus 7.25%, or (ii) 9.40%. The payments under the Hercules Term Loan were interest only until June 1, 2016. The interest-only period was followed by equal monthly payments of principal and interest amortized over a 30-month schedule through the scheduled maturity date of September 1, 2018. As security for its obligations under the Hercules Term Loan, we granted a security interest in substantially all of our existing and after-acquired assets, excluding our intellectual property assets. We used a portion of the proceeds under the Hercules Term Loan to repay the outstanding principle balance, final payment fee, prepayment fee, and accrued interest totaling $5.5 million from GECC.

If we prepay the loan prior to the loan maturity date, we may pay Hercules a prepayment charge equal to 1.00% of the amount. The Hercules Term Loan includes customary affirmative and restrictive covenants, but does not include any financial maintenance covenants, and also includes standard events of default, including payment defaults. Upon the

occurrence of an event of default, a default interest rate of an additional 5% may be applied to the outstanding loan balances, and Hercules may declare all outstanding obligations immediately due and payable and take such other actions as set forth in the Hercules Term Loan.

We incurred debt issuance costs of $0.5 million in connection with the Hercules Term Loan. We will be required to pay a final payment fee equal to $1.2 million on the maturity date, or such earlier date as the term loan is paid in full. The debt issuance costs and final payment fee are being amortized and accreted, respectively, to interest expense over the term of the term loan using the effective interest method.

In connection with the Hercules Term Loan, we 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. We allocated the aggregate proceeds of the Hercules Term Loan between the warrants and the debt obligation. The estimated fair value of the warrants issued to Hercules of $0.5 million was determined using the Black-Scholes Model and was recorded as a discount to the debt obligation. The discount is being amortized over the term of the loan using the effective interest method. The warrants are classified in stockholders' equity on the consolidated balance sheet. At December 31, 2016, the net carrying value of the Hercules Term Loan was $16.9 million.

On December 21, 2016, we entered into Amendment No. 1 (the "Amendment") to the Hercules Loan Agreement. Under the Amendment, Hercules agreed to release its security interest in the assets subject to the Acquisition Agreements. In turn, we paid $10.0 million of the current outstanding principal balance owed to Hercules in January 2017. The $10.0 million payment was not subject to any prepayment charge.

Servier Loan

In December 2010, we entered into a loan agreement with Servier (the "Servier Loan Agreement"), which provided for an advance of up to €15.0 million. The loan was fully funded in January 2011, with the proceeds converting to approximately $19.5 million at the exchange rate on the date of funding. The loan is secured by an interest in XOMA's intellectual property rights to all gevokizumab indications worldwide, excluding certain rights in the U.S. and Japan. Interest is calculated at a floating rate based on a Euro Inter-Bank Offered Rate ("EURIBOR") and is subject to a cap. The interest rate is reset semi-annually in January and July of each year. The interest rate for the initial interest period was 3.22% and was reset semi-annually ranging from 1.81% to 3.83%. Interest for the six-month period from mid-July 2016 through mid-January 2017 was reset to 1.81%. In January 2016 and July 2016, we made payments of $0.1 million in accrued interest to Servier. In addition, the loan becomes immediately due and payable upon certain customary events of default. On January 9, 2015, Servier and we entered into Amendment No. 2 ("Loan Amendment") which extended the maturity date of the loan from January 13, 2016 to three tranches of principal to be repaid as follows: €3.0 million on January 15, 2016, €5.0 million on January 15, 2017, and €7.0 million on January 15, 2018. On September 28, 2015, Servier notified us of its intention to terminate the Collaboration Agreement, as amended and return the gevokizumab rights to XOMA. The termination, which became effective on March 25, 2016, did not result in a change to the maturity date of our loan with Servier. At December 31, 2016, the outstanding principal balance under this loan was $12.6 million using the December 31, 2016 Euro to U.S. Dollar exchange rate of 1.052. In January 2017, we entered into Amendment No. 3 to the Servier Loan Agreement ("Amendment No. 3"). Amendment No. 3 extended the maturity date of the €5.0 million due on January 15, 2017 to July 15, 2017. The other terms of the loan remained unchanged.

* * *

In February 2017, we sold 1,200,000 shares of our common stock and 5,003 shares of Series X convertible preferred stock directly to Biotechnology Value Fund, L.P. and certain of its affiliates ("BVF") in a registered direct offering, for aggregate net cash proceeds of $24.9 million. BVF purchased the shares of common stock from us 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. We may use a portion of the proceeds to prepay the remaining

balance due under the Hercules Term Loan.

We have incurred operating losses since inception and have an accumulated deficit of $1.2 billion at December 31, 2016. Management expects operating losses and negative cash flows to continue for the foreseeable future. As of December 31, 2016, we had $25.7 million in cash and cash equivalents, which is available to fund future operations. Taking into account the net proceeds of $24.9 million from the registered direct offering with BVF in February 2017 and repayment of our outstanding debt classified within current liabilities on our consolidated balance sheet as of December 31, 2016, without the receipt of additional funds from license agreements or additional equity or debt financing, we will not be able to fund our operations and make loan payments as they become due for the next 12 months following the issuance of our consolidated financial statements. We may not be able to obtain sufficient additional funding by entering into new license agreements, issuing additional equity or debt instruments or any other means, and if we are able to do so, they may not be on satisfactory terms. The analysis used to determine our ability to continue as a going concern does not include cash sources outside of our direct control that we expect to be available to us in within the next twelve months, such as a $10.0 million milestone expected under one of our existing license agreements.

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. Therefore, we determined there is substantial doubt about our ability to continue as a going concern within one year from the date that the consolidated financial statements are issued. Our independent registered public accounting firm has included in its auditor's report on our consolidated financial statements, included in this Annual Report on Form 10-K, a "going concern" explanatory paragraph, meaning that we have recurring losses from operations and negative cash flows from operations that raise substantial doubt regarding our ability to continue as a going concern. Consistent with the actions we have taken in the past, we will take steps intended to enable the continued operation of the business which may include out-licensing or sale of assets and reducing other expenditures that are within our control. These reductions in expenditures may have a material adverse impact on our ability to achieve certain of our planned objectives. Even if we are able to source additional funding, we may be forced to significantly reduce our operations if our business prospects do not improve. If we are unable to source additional funding, we may be forced to shut down operations altogether.

Commitments and Contingencies

Schedule of Contractual Obligations

Payments by period due under contractual obligations at December 31, 2016, are as follows (in thousands):

Contractual Obligations	Total	Less than 1 year	1 to 3 years	3 to 5 years	More than 5 years
Operating leases[1]	$21,633	$3,621	$7,565	$7,041	$3,406
Capital lease[1]	188	116	72	—	—
Debt obligations[2]					
Principal and final payment fee	44,235	18,465	11,685	14,085	—
Interest	2,868	750	222	1,896	—
Total	$68,924	$22,952	$19,544	$23,022	$3,406

(1) See Note 13: Commitment and Contingencies to the accompanying consolidated financial statements for further discussion.

(2) See Item 7A: Quantitative and Qualitative Disclosures about Market Risk and Note 8: Long-Term Debt and Other Financings to the accompanying consolidated financial statements for further discussion of our debt obligation. Refer to Management's Discussion and Analysis of Financial Condition and Results of Operations for further information regarding the Hercules Loan Agreement.

We lease administrative and research 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. In addition to the above, 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 by us of certain developmental, regulatory and/or commercial milestones. 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, 2016. We are also obligated to pay royalties, ranging generally from 0.5% to 3.5% of the selling price of the licensed component

and up to 40% of any sublicense fees to various universities and other research institutions based on future sales or licensing of products that incorporate certain products and technologies developed by those institutions. We are unable to determine precisely when and if our payment obligations under the agreements will become due as these obligations are based on future events, the achievement of which is subject to a significant number of risks and uncertainties.

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.

Recent Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board ("FASB") issued guidance codified in Accounting Standards Codification ("ASC") 606, Revenue Recognition — Revenue from Contracts with Customers, which amends the guidance in ASC 605, Revenue Recognition. The standard's core principle is that a company will recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services. In August 2015, the FASB issued an accounting update to defer the effective date by one year for public entities such that it is now applicable for annual and interim periods beginning after December 15, 2017. Early adoption is permitted for periods beginning after December 15, 2016. ASC 606 also permits two methods of adoption: retrospectively to each prior reporting period presented (full retrospective method), or retrospectively with the cumulative effect of initially applying the guidance recognized at the date of initial application (the modified retrospective method). We plan to adopt the standard on January 1, 2018. A decision regarding the adoption method has not been finalized at this time. Our final determination will depend on a number of factors such as the significance of the impact of the new standard on our financial results and our ability to accumulate and analyze the information necessary to assess the impact on prior period financial statements, as necessary.

In February 2016, the FASB issued ASU 2016-02, Leases (Topic 842). ASU 2016-2 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. ASU 2016-2 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. We are evaluating the impact of the adoption of the standard on our consolidated financial statements.

In March 2016, the FASB issued ASU 2016-09, Compensation-Stock Compensation (Topic 718) Improvements to Employee Share-Based Payment Accounting ("ASU 2016-09"), which is intended to simplify several aspects of the accounting for employee share-based payment transactions, including the income tax consequences, the determination of forfeiture rates, classification of awards as either equity or liabilities, and classification on the statement of cash flows. This ASU is effective for fiscal years and interim periods within those years beginning after December 15, 2016 and early adoption is permitted. We are currently evaluating the impact that the adoption of ASU 2016-09 will have on our consolidated financial statements.

Off Balance Sheet Arrangements

We do not have any off balance sheet arrangements, as defined in Item 303(a)(4)(ii) of Regulation S-K promulgated by the SEC.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

Interest Rate Risk

Our exposure to market rate risk for changes in interest rates relates primarily to our investment portfolio and our loan facilities. By policy, we make our investments in high-quality debt securities, limit the amount of credit exposure to any one non-U.S. Treasury issuer, and limit duration by restricting the term of the instrument. We generally hold investments to maturity, with a weighted average portfolio period of less than twelve months. However, if the need

arose to liquidate such securities before maturity, we may experience losses on liquidation.

We hold interest-bearing instruments that are classified as cash and cash equivalents. Fluctuations in interest rates can affect the principal values and yields of fixed income investments. If interest rates in the general economy were to rise rapidly in a short period of time, our fixed income investments could lose value.

The following table presents the amounts and related weighted average interest rates of our cash and cash equivalents at December 31, 2016 and 2015 (in thousands, except interest rate):

	Maturity	Carrying Amount (in thousands)	Fair Value (in thousands)	Weighted Average Interest Rate	
December 31, 2016					
Cash and cash equivalents	Daily to 90 days	$ 25,742	$ 25,742	0.23	%
December 31, 2015					
Cash and cash equivalents	Daily to 90 days	$ 65,767	$ 65,767	0.05	%

As of December 31, 2016, we have an outstanding principal balance on our note with Novartis of $14.1 million, which is due in 2020. The interest rate on this note is charged at a rate of USD six-month London Interbank Offered Rate ("LIBOR") plus 2%, which was 3.32% at December 31, 2016. No further borrowing is available under this note.

As of December 31, 2016, we have an outstanding principal balance on our loan with Servier of €12.0 million, which converts to approximately $12.6 million at December 31, 2016. The interest rate on this loan is charged at a floating rate based on EURIBOR and subject to a cap. The interest rate for the initial interest period was 3.22% and was reset semi-annually ranging from 1.81% to 3.83%. Interest for the six-month period from mid-July 2015 through mid-January 2016 was reset to 2.05%. Interest for the six-month period from mid-January 2016 through mid-July 2016 was reset to 1.95%. Interest for the six-month period from mid-July 2016 through mid-January 2017 was reset to 1.81%. Interest is payable semi-annually. No further borrowing is available under this loan.

As of December 31, 2016, we have an outstanding principal balance on our loan with Hercules of $17.5 million. The interest rate on this loan is the greater of either (i) 9.40% plus the prime rate as reported from time to time in The Wall Street Journal minus 7.25%, or (ii) 9.40%. We paid $10.0 million of the current outstanding principal balance owed to Hercules in January 2017.

The variable interest rate related to our long-term debt instruments is based on LIBOR for our Novartis note, EURIBOR for our Servier loan and the prime rate for the Hercules loan. We estimate a hypothetical 100 basis point change in interest rates could increase or decrease our interest expense by approximately $0.3 million on an annualized basis.

Foreign Currency Risk

We have debt and incur expenses denominated in foreign currencies. The amount of debt owed or expenses incurred will be impacted by fluctuations in these foreign currencies. When the U.S. Dollar weakens against foreign currencies, the U.S. Dollar value of the foreign-currency denominated debt, and expense increases, and when the U.S. Dollar strengthens against these currencies, the U.S. Dollar value of the foreign-currency denominated debt, and expense decreases. Consequently, changes in exchange rates will affect the amount we are required to repay on our €12.0 million loan from Servier and may affect our results of operations. We estimate that a hypothetical 0.01 change in the Euro to USD exchange rate could increase or decrease our unrealized gains or losses by approximately $0.2 million.

Our loan from Servier was fully funded in January 2011, with the proceeds converting to approximately $19.5 million using the January 13, 2011 Euro-to-U.S.-Dollar exchange rate of 1.3020. At December 31, 2016, the €12.0 million outstanding principal balance under the Servier Loan Agreement equaled approximately $12.6 million using the December 31, 2016 Euro-to-USD exchange rate of 1.052. In May 2011, in order to manage our foreign currency exposure relating to our principal and interest payments on our loan from Servier, we entered into two foreign exchange option contracts to buy €1.5 million and €15.0 million in January 2014 and January 2016, respectively. Upfront premiums paid on these foreign exchange option contracts totaled $1.5 million. As of December 31, 2016, both option contracts had expired. Our use of derivative financial instruments represents risk management; we do not enter into derivative financial contracts for trading purposes.

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

Under the supervision and with the participation of our management, including our Chief Executive Officer and our 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, 2016. 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, 2016, our internal control over financial reporting is effective based on those criteria.

The Company's internal control over financial reporting as of December 31, 2016, has been audited by Ernst & Young, LLP, independent registered public accounting firm who also audited the Company's consolidated financial statements. Ernst & Young's report on the Company's internal control over financial reporting follows.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting identified in connection with the evaluation required by paragraph (d) of Exchange Act Rules 13a-15 or 15d-15 that occurred during our last fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders of XOMA Corporation

We have audited XOMA Corporation's internal control over financial reporting as of December 31, 2016, based on criteria established in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). XOMA Corporation'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 conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). 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.

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.

In our opinion, XOMA Corporation maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of XOMA Corporation as December 31, 2016 and 2015, and the related consolidated statements of comprehensive loss, stockholders' (deficit) equity, and cash flows for each of the three years in the period ended December 31, 2016 of XOMA Corporation and our report dated March 16, 2017 expressed an unqualified opinion thereon that included an explanatory paragraph regarding XOMA Corporation's ability to continue as a going concern.

/s/ Ernst & Young LLP

Redwood City, California

March 16, 2017

PART III

Item 10. Directors, Executive Officers, Corporate Governance

Certain information regarding our executive officers required by this Item is set forth as a Supplementary Item at the end of Part I of this Form 10-K (under Instruction 3 to Item 401(b) of Regulation S-K). Other information required by this Item will be included in the Company's proxy statement for the 2017 Annual General Meeting of Stockholders ("2017 Proxy Statement"), under the sections labeled "Item 1—Election of Directors" and "Compliance with Section 16(a) of the Securities Exchange Act of 1934", and is incorporated by reference. The 2017 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 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", "Grants of Plan-Based Awards", "Outstanding Equity Awards as of December 31, 2016", "Option Exercises and Shares Vested", "Pension Benefits", "Non-Qualified Deferred Compensation" and "Compensation of Directors" appearing in our 2017 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 2017 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 2017 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 “Appointment of Independent Registered Public Accounting Firm” appearing in our 2017 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:

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 16th day of March 2017.

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	Chief Executive Officer (Principal Executive Officer) and Director	March 16, 2017
(James R. Neal)		
/s/ Thomas Burns	Senior Vice President, Finance and Chief Financial Officer (Principal Financial and Principal Accounting Officer)	March 16, 2017
(Thomas Burns)		
/s/ W. Denman Van Ness	Chairman of the Board of Directors	March 16, 2017
(W. Denman Van Ness)		
/s/ John W. Varian	Director	

		March 16, 2017
(John W. Varian)		
/s/ Peter Barton Hutt	Director	March 16, 2017
(Peter Barton Hutt)		
	Director	March 16, 2017
(Joseph M. Limber)		
/s/ Timothy P. Walbert	Director	March 16, 2017
(Timothy P. Walbert)		
/s/ Jack L. Wyszomierski	Director	March 16, 2017
(Jack L. Wyszomierski)		
/s/ Matthew Perry	Director	March 16, 2017
(Matthew Perry)		

Index to Consolidated Financial Statements

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders of XOMA Corporation

We have audited the accompanying consolidated balance sheets of XOMA Corporation as of December 31, 2016 and 2015, and the related consolidated statements of comprehensive loss, stockholders' (deficit) equity and cash flows for each of the three years in the period ended December 31, 2016. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of XOMA Corporation at December 31, 2016 and 2015, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2016, in conformity with U.S. generally accepted accounting principles.

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the financial statements, the Company's recurring losses from operations and its need for additional capital raise substantial doubt about its ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 1. The financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classification of liabilities that may result from the outcome of this uncertainty.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), XOMA Corporation's internal control over financial reporting as of December 31, 2016, based on criteria established in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated March 16, 2017 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Redwood City, California

March 16, 2017

XOMA Corporation

CONSOLIDATED BALANCE SHEETS

(in thousands, except share data)

	December 31, 2016	2015
ASSETS		
Current assets:		
Cash and cash equivalents	$25,742	$65,767
Marketable securities	—	496
Trade and other receivables, net	566	4,069
Prepaid expenses and other current assets	852	1,887
Total current assets	27,160	72,219
Property and equipment, net	1,036	1,997
Other assets	481	664
Total assets	$28,677	$74,880
LIABILITIES AND STOCKHOLDERS' DEFICIT		
Current liabilities:		
Accounts payable	$5,689	$6,831
Accrued and other liabilities	4,215	6,566
Accrued restructuring costs	3,594	459
Deferred revenue – current	899	3,198
Interest bearing obligations – current	17,855	5,910
Accrued interest on interest bearing obligations – current	254	331
Total current liabilities	32,506	23,295
Deferred revenue – non-current	18,000	—
Interest bearing obligations – non-current	25,312	42,757
Contingent warrant liabilities	—	10,464
Other liabilities – non-current	69	673
Total liabilities	75,887	77,189
Commitments and Contingencies (Note 13)		
Stockholders' deficit:		
Preferred stock, $0.05 par value, 1,000,000 shares authorized, 0 issued and outstanding at December 31, 2016 and 2015	—	—
Common stock, $0.0075 par value, 277,333,332 shares authorized, 6,114,145 and 5,952,278 shares issued and outstanding at December 31, 2016 and 2015, respectively	46	45

Additional paid-in capital	1,146,357	1,137,729
Accumulated deficit	(1,193,613)	(1,140,083)
Total stockholders' deficit	(47,210)	(2,309)
Total liabilities and stockholders' deficit	$28,677	$74,880

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

XOMA Corporation

CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS

(in thousands, except per share amounts)

	Year Ended December 31,		
	2016	2015	2014
Revenues:			
License and collaborative fees	$3,296	$49,064	$5,683
Contract and other	2,268	6,383	13,183
Total revenues	5,564	55,447	18,866
Operating expenses:			
Research and development	44,234	70,852	80,748
Selling, general and administrative	18,322	20,620	19,866
Restructuring	4,566	3,699	84
Total operating expenses	67,122	95,171	100,698
Loss from operations	(61,558)	(39,724)	(81,832)
Other income (expense):			
Interest expense	(3,946)	(4,194)	(4,303)
Other income, net	1,510	5,500	2,061
Revaluation of contingent warrant liabilities	10,464	17,812	45,773
Net loss	$(53,530)	$(20,606)	$(38,301)
Basic net loss per share of common stock	$(8.89)	$(3.50)	$(7.13)
Diluted net loss per share of common stock	$(8.89)	$(3.50)	$(13.49)
Shares used in computing basic net loss per share of common stock	6,021	5,890	5,372
Shares used in computing diluted net loss per share of common stock	6,021	5,890	5,767
Other comprehensive loss:			
Net loss	$(53,530)	$(20,606)	$(38,301)
Net unrealized gain on available-for-sale securities	—	—	1
Comprehensive loss	$(53,530)	$(20,606)	$(38,300)

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

XOMA Corporation

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' (DEFICIT) EQUITY

(in thousands)

	Common Stock Shares	Common Stock Amount	Additional Paid-In Capital	Accumulated Comprehensive Income	Accumulated Deficit	Total Stockholders' (Deficit) Equity
Balance, December 31, 2013	5,269	$ 40	$1,077,150	$ (1)	$(1,081,176)	$ (3,987)
Exercise of stock options, contributions to 401(k) and incentive plans	54	1	4,525	—	—	4,526
Vesting of restricted stock units	49	—	—	—	—	—
Stock-based compensation expense	—	—	10,772	—	—	10,772
Sale of shares of common stock	405	3	37,783	—	—	37,786
Issuance of warrants	—	—	(10,258)	—	—	(10,258)
Exercise of warrants	18	—	2,560	—	—	2,560
Net loss	—	—	—	—	(38,301)	(38,301)
Other comprehensive income	—	—	—	1	—	1
Balance, December 31, 2014	5,795	44	1,122,532	—	(1,119,477)	3,099
Exercise of stock options, contributions to 401(k) and incentive plans	27	—	1,467	—	—	1,467
Vesting of restricted stock units	60	—	—	—	—	—
Stock-based compensation expense	—	—	9,727	—	—	9,727
Issuance of warrants	—	—	450	—	—	450
Exercise of warrants	70	1	3,553	—	—	3,554
Net loss	—	—	—	—	(20,606)	(20,606)
Balance, December 31, 2015	5,952	45	1,137,729	—	(1,140,083)	(2,309)
Contributions to 401(k) and incentive plans	36	—	844	—	—	844
Vesting of restricted stock units	113	1	(1)	—	—	—
Stock-based compensation expense	—	—	7,645	—	—	7,645
Issuance of warrants	—	—	97	—	—	97
Issuance of common stock	13	—	43	—	—	43
Net loss	—	—	—	—	(53,530)	(53,530)
Balance, December 31, 2016	6,114	$ 46	$1,146,357	$ —	$(1,193,613)	$ (47,210)

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,		
	2016	2015	2014
Cash flows used in operating activities:			
Net loss	$(53,530)	$(20,606)	$(38,301)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	769	1,532	1,856
Common stock contribution to 401(k)	785	986	870
Stock-based compensation expense	7,645	9,727	10,772
Revaluation of contingent warrant liabilities	(10,464)	(17,812)	(45,773)
Amortization of debt issuance costs, debt discount and final payment fee on debt	1,451	1,413	2,707
Gain on sale of business in connection with Agenus asset purchase agreement	—	(3,505)	—
Loss on loan extinguishment	—	429	—
Gain on sale of marketable securities	(126)	—	—
Unrealized gain on foreign currency exchange	(489)	(1,870)	(2,280)
Impairment of long-lived assets and non-marketable cost method investment	370	—	—
Other	112	(12)	346
Changes in assets and liabilities:			
Trade and other receivables, net	3,532	(761)	472
Prepaid expenses and other current assets	1,034	(28)	(662)
Accounts payable and accrued liabilities	(3,938)	(2,080)	(3,753)
Accrued restructuring	3,135	459	(21)
Accrued interest on interest bearing obligations	331	380	(1,444)
Deferred revenue	15,694	356	(2,983)
Other liabilities	—	500	(88)
Net cash used in operating activities	(33,689)	(30,892)	(78,282)
Cash flows from investing activities:			
Proceeds from sale of marketable securities	622	—	—
Proceeds from maturities of investments	—	—	20,000
Purchases of property and equipment	(59)	(430)	(325)
Proceeds from sale of business in connection with Agenus asset purchase agreement	—	4,862	—
Proceeds from sale of property and equipment	49	18	—
Net cash provided by investing activities	612	4,450	19,675
Cash flows from financing activities:			
Proceeds from issuance of common stock, net of issuance costs	57	481	41,442
Proceeds from exercise of warrants	—	1	35
Proceeds from issuance of long term debt	—	20,000	—
Debt issuance costs and loan fees	—	(512)	—
Principal payments – debt	(6,890)	(6,128)	(5,917)
Principal payments – capital lease	(109)	(41)	—

Net cash (used in) provided by financing activities	(6,942)	13,801	35,560
Effect of exchange rate on cash	(6)	(37)	(167)
Net decrease in cash and cash equivalents	(40,025)	(12,678)	(23,214)
Cash and cash equivalents at the beginning of the year	65,767	78,445	101,659
Cash and cash equivalents at the end of the year	$25,742	$65,767	$78,445
Supplemental Cash Flow Information:			
Cash paid for interest	$2,142	$1,927	$3,009
Non-cash investing and financing activities:			
Marketable securities received in conjunction with the disposal of business	$—	$496	$—
Equipment acquired through capital lease	$—	$323	$—
Reclassification of contingent warrant liability to equity upon exercise of warrants	$—	$(3,552)	$(2,526)
Issuance of warrants	$—	$450	$10,258
Interest added to principal balances on long-term debt	$402	$327	$313

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 therapeutics derived from our unique platform of antibody technologies. The Company has typically sought to license these therapeutic assets to licensees who take on the responsibilities of later stage development, approval and commercialization. In addition, XOMA has licensed antibody technologies on a non-exclusive basis to other companies who desire to access this platform for their own discovery efforts. As XOMA's business model is based on the goal of out-licensing to other pharmaceutical companies for them to commercialize and market any resultant products, the Company expects that a significant portion of its future revenue will be based on payments it may receive from its licensees.

XOMA's asset base includes antibodies with unique properties including several that interact at allosteric sites on a specific protein rather than the orthosteric, or active, sites. These compounds are designed to either enhance or diminish the target protein's activity as desired.

Going Concern

The Company has incurred operating losses since its inception resulting in an accumulated deficit of $1.2 billion, has a working capital deficiency of $5.3 million and $43.2 million in total outstanding debt at December 31, 2016. Management expects operating losses and negative cash flows to continue for the foreseeable future and, as a result, the Company will require additional capital to fund its operations and execute its business plan. As of December 31, 2016, the Company had $25.7 million in cash and cash equivalents, which is available to fund future operations. In February 2017, the Company received net proceeds of $24.9 million from a registered direct offering. Taking into account the net proceeds of $24.9 million from the registered direct offering in February 2017, the repayment of its outstanding debt classified within current liabilities on the Company's consolidated balance sheet as of December 31, 2016, and without the receipt of additional funds from license and collaboration agreements or additional equity or debt financing, it will be unable to fund its operations and make scheduled loan payments beyond February 2018. Therefore, the Company determined there is substantial doubt about its ability to continue as a going concern within one year after the date the consolidated financial statements are issued. The analysis used to determine the Company's ability to continue as a going concern does not include cash sources outside of XOMA's direct control that management expects to be available within the next twelve months.

The Company may not be able to obtain sufficient additional funding through monetizing certain of its existing assets, entering into new license and collaboration agreements, issuing additional equity or debt instruments or any other means, and if it is able to do so, they may not be on satisfactory terms. The Company's ability to raise additional capital in the equity and debt markets, should the Company choose to do so, is dependent on a number of factors, including, but not limited to, the market demand for the Company's common stock, which itself is subject to a number

of pharmaceutical development and business risks and uncertainties, as well as the uncertainty that the Company would be able to raise such additional capital at a price or on terms that are favorable to the Company. Consistent with the actions the Company has taken in the past, including the restructuring in December 2016, it will take steps intended to enable the continued operation of the business which may include out-licensing or sale of assets and reducing other expenditures that are within the Company's control. These reductions in expenditures may have a material adverse impact on the Company's ability to achieve certain of its planned objectives. Even if the Company is able to source additional funding, it may be forced to significantly reduce its operations if its business prospects do not improve. If the Company is unable to source additional funding, it may be forced to shut down operations altogether. These consolidated financial statements have been prepared on a going concern basis and do not include any adjustments to the amounts and classification of assets and liabilities that may be necessary in the event the Company can no longer continue as a going concern.

Reverse Stock Split

In October 2016, the Company's stockholders voted at a special meeting of stock holders to approve a series of alternate amendments to the Company's Amended Certificate of Incorporation to effect a reverse stock split of the Company's issued and outstanding common stock. The Company's Board of Directors then approved a specific reverse split ratio of 1-for-20. The par value per share of the Company's common stock and preferred stock remained at $0.0075 and $0.05, respectively. The consolidated financial statements have been retroactively adjusted to reflect the reverse stock split for all periods presented.

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.

Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles in the United States 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 contingent warrant liabilities, revenue recognition, debt amendments, research and development expense, long-lived assets, restructuring liabilities, legal contingencies, derivative instruments 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 the Company's accrual for clinical trial expenses. 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 bills using NIH 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 significant. In March 2016, the Company effected the novation of its remaining active contract with NIAID to Nanotherapeutics, Inc. ("Nanotherapeutics") (see Note 6). The billings made prior to the effective date of the novation of such contract are still subject to future audits, which may result in significant adjustments to reported revenues. The Company's accrual for clinical trials is based on estimates of the services received and efforts expended under contracts with clinical trial centers and clinical research organizations.

Revenue Recognition

Revenue is recognized when the four basic criteria of revenue recognition are met: (1) persuasive evidence of an arrangement exists; (2) delivery has occurred or services have been rendered; (3) the fee is fixed or determinable; and (4) collectability is reasonably assured. The determination of criteria (2) is based on management's judgments regarding whether a continuing performance obligation exists. The determination of criteria (3) and (4) are based on management's judgments regarding the nature of the fee charged for products or services delivered and the collectability of those fees. Allowances are established for estimated uncollectible amounts, if any.

The Company recognizes revenue from its license and collaboration arrangements, contract services, and royalties. Revenue arrangements with multiple elements are divided into separate units of accounting if certain criteria are met, including whether the delivered element has stand-alone value to the customer and whether there is objective and reliable evidence of the fair value of the undelivered items. Each deliverable in the arrangement is evaluated to determine whether it meets the criteria to be accounted for as a separate unit of accounting or whether it should be combined with other deliverables. In order to account for the multiple-element arrangements, the Company identifies the deliverables included within the arrangement and evaluates which deliverables represent separate units of accounting. Analyzing the arrangement to identify deliverables requires the use of judgment, and each deliverable may be an obligation to deliver services, a right or license to use an asset, or another performance obligation. The consideration received is allocated among the separate units of accounting based on their respective fair values and the applicable revenue recognition criteria are applied to each of the separate units. Advance payments received in excess of amounts earned are classified as deferred revenue until earned.

License and Collaborative Fees

Revenue from non-refundable license, technology access or other payments under license and collaborative agreements where the Company has a continuing obligation to perform is recognized as revenue over the estimated period of the continuing performance obligation. The Company estimates the performance period at the inception of the arrangement and reevaluates it each reporting period. Management makes its best estimate of the period over which it expects to fulfill the performance obligations, which may include clinical development activities. Given the uncertainties of research and development collaborations, significant judgment is required to determine the duration of the performance period. This reevaluation may shorten or lengthen the period over which the remaining revenue is recognized. Changes to these estimates are recorded on a prospective basis.

License and collaboration agreements with certain third parties also provide for contingent payments to be paid to the Company based solely upon the performance of the partner. For such contingent payments revenue is recognized upon completion of the milestone event, once confirmation is received from the third party, provided that collection is reasonably assured and the other revenue recognition criteria have been satisfied. Milestone payments that are not substantive or that require a continuing performance obligation on the part of the Company are recognized over the expected period of the continuing performance obligation. Amounts received in advance are recorded as deferred revenue until the related milestone is completed.

Payment related to an option to purchase the Company's commercialization rights is considered substantive if, at the inception of the arrangement, the Company is at risk as to whether the collaboration partner will choose to exercise the option. Factors that the Company considers in evaluating whether an option is substantive include the overall objective of the arrangement, the benefit the collaborator might obtain from the arrangement without exercising the option, the cost to exercise the option and the likelihood that the option will be exercised. For arrangements under which an option is considered substantive, the Company does not consider the item underlying the option to be a deliverable at the inception of the arrangement and the associated option fees are not included in allocable arrangement consideration, assuming the option is not priced at a significant and incremental discount. Conversely, for arrangements under which an option is not considered substantive or if an option is priced at a significant and incremental discount, the Company would consider the item underlying the option to be a deliverable at the inception of the arrangement and a corresponding amount would be included in allocable arrangement consideration.

Contract and Other Revenues

Contract revenue for research and development involves the Company providing research and development services to collaborative parties or others. Cost reimbursement revenue under collaborative agreements is recorded as contract and other revenues and is recognized as the related research and development costs are incurred, as provided for under the terms of these agreements. Revenue for certain contracts is accounted for by a proportional performance, or output-based, method where performance is based on estimated progress toward elements defined in the contract. The amount of contract revenue and related costs recognized in each accounting period are based on management's estimates of the proportional performance during the period. Adjustments to estimates based on actual performance are recognized on a prospective basis and do not result in reversal of revenue should the estimate to complete be extended. In 2014, the Company had a $1.8 million adjustment to decrease previously invoiced balances from the NIAID contract (see Note 4).

Up-front fees associated with contract revenue are recorded as license and collaborative fees and are recognized in the same manner as the final deliverable, which is generally ratably over the period of the continuing performance obligation. Given the uncertainties of research and development collaborations, significant judgment is required to determine the duration of the arrangement.

Royalty revenue and royalty receivables are recorded in the periods these royalty amounts are earned, if estimable and collectability is reasonably assured. The royalty revenue and receivables recorded in these instances are based upon communication with the Company's licensees, historical information and forecasted sales trends.

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 milestone or royalty stream and recognizes such deferred revenue as contract and other revenue over the life of the underlying license agreement. The Company recognizes this revenue under the "units-of-revenue" method. Under this 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.

Research and Development Expenses

The Company expenses research and development costs as incurred. Research and development expenses consist of direct costs such as salaries and related personnel costs, and material and supply costs, and research-related allocated overhead costs, such as facilities costs. In addition, research and development expenses include costs related to clinical trials. From time to time, research and development expenses may include up-front fees and milestones paid to collaborative partners for the purchase of rights to in-process research and development. Such amounts are expensed as incurred.

The Company's accrual for clinical trials is based on estimates of the services received and efforts expended under contracts with clinical trial centers and clinical research organizations. The Company may terminate these contracts upon written notice and is generally only liable for actual effort expended by the organizations to the date of termination, although in certain instances the Company may be further responsible for termination fees and penalties. The Company makes estimates of its accrued expenses as of each balance sheet date based on the facts and circumstances known to the Company at that time. Expenses resulting from clinical trials are recorded when incurred based in part on estimates as to the status of the various trials.

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 valuation of restricted stock units ("RSUs") is determined at the date of grant using the Company's closing stock price.

To establish an estimate of forfeiture rate, the Company considers its historical experience of option forfeitures and terminations. Forfeitures are estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from estimates.

Restructuring and Impairment Charges

Restructuring costs are primarily comprised of severance costs related to workforce reductions, contract termination costs 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.

Cash, Cash Equivalents and Marketable Securities

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.

All marketable securities have been classified as “available-for-sale” and are carried at fair value, with unrealized gains and losses, net of tax, if any, reported in other comprehensive income (loss). The estimate of fair value is based on publicly available market information. Realized gains and losses and declines in value judged to be other-than-temporary on available-for-sale securities are included in other income (expense), net. The Company reviews its instruments for other-than-temporary impairment whenever the value of the instrument is less than the amortized cost. The cost of investments sold is based on the specific identification method. Interest and dividends on securities classified as available-for-sale are included in other income (expense), net.

Property and Equipment and Long-Lived Assets

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 to seven years). Leasehold improvements, buildings and building improvements are depreciated using the straight-line method over the shorter of the lease terms or the useful lives (one to fifteen years). Amortization expense for assets acquired through capital leases is included in depreciation expense in the consolidated statements of comprehensive loss. Upon the sale or retirement 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 comprehensive loss. Repairs and maintenance costs are charged to expense as incurred.

Long-lived assets include property and equipment. The carrying value of our long-lived assets 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, 2016, the Company recognized an impairment charge of $0.2 million (see Note 3). During the years ended December 31, 2015, and 2014, there were no material impairment losses recognized.

Warrants

The Company has issued warrants to purchase shares of its common stock in connection with financing activities. The Company accounts for some of these warrants as a liability at fair value and others as equity at fair value. The fair value of the outstanding warrants is estimated using the Black-Scholes Model. The Black-Scholes Model requires inputs such as the expected term of the warrants, expected volatility and risk-free interest rate. These inputs are subjective and require significant analysis and judgment to develop. For the estimate of the expected term, the Company uses the full remaining contractual term of the warrant. The Company determines the expected volatility assumption in the Black-Scholes Model based on historical stock price volatility observed on the Company’s underlying stock. The assumptions associated with contingent warrant liabilities are reviewed each reporting period and changes in the estimated fair value of these contingent warrant liabilities are recognized in revaluation of contingent warrant liabilities within the consolidated statements of comprehensive loss.

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 per Share of Common Stock

Basic net loss per share of common stock is based on the weighted average number of shares of common stock outstanding during the period. Diluted net loss per share of common stock is based on the weighted average number of shares outstanding during the period, adjusted to include the assumed conversion of certain stock options, RSUs, and warrants for common stock. The calculation of diluted loss per share of common stock requires that, to the extent the average market price of the underlying shares for the reporting period exceeds the exercise price of the warrants and the presumed exercise of such securities are dilutive to earnings (loss) per share of common stock for the period, adjustments to net loss used in the calculation are required to remove the change in fair value of the warrants for the period. Likewise, adjustments to the denominator are required to reflect the related dilutive shares.

Recent Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board ("FASB") issued guidance codified in Accounting Standards Codification ("ASC") 606, Revenue Recognition — Revenue from Contracts with Customers, which amends the guidance in ASC 605, Revenue Recognition. The standard's core principle is that a company will recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services. In August 2015, the FASB issued an accounting update to defer the effective date by one year for public entities such that it is now applicable for annual and interim periods beginning after December 15, 2017. Early adoption is permitted for periods beginning after December 15, 2016. ASC 606 also permits two methods of adoption: retrospectively to each prior reporting period presented (full retrospective method), or retrospectively with the cumulative effect of initially applying the guidance recognized at the date of initial application (the modified retrospective method). The Company currently plans to adopt the standard on January 1, 2018. A decision regarding the adoption method has not been finalized at this time. The Company's final determination will depend on a number of factors such as the significance of the impact of the new standard on the Company's financial results and the Company's ability to accumulate and analyze the information necessary to assess the impact on prior period financial statements, as necessary.

In February 2016, the FASB issued ASU 2016-02, Leases (Topic 842). ASU 2016-2 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. ASU 2016-2 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. The Company is evaluating the impact of the adoption of the standard on its consolidated financial statements.

In March 2016, the FASB issued ASU 2016-09, Compensation-Stock Compensation (Topic 718) Improvements to Employee Share-Based Payment Accounting ("ASU 2016-09"), which is intended to simplify several aspects of the accounting for employee share-based payment transactions, including the income tax consequences, the determination of forfeiture rates, classification of awards as either equity or liabilities, and classification on the statement of cash flows. This ASU is effective for fiscal years and interim periods within those years beginning after December 15, 2016 and early adoption is permitted. The Company is currently evaluating the impact that the adoption of ASU 2016-09 will have on its consolidated financial statements and related disclosures.

3. Consolidated Financial Statement Detail

Cash and Cash Equivalents

At December 31, 2016, cash and cash equivalents consisted of demand deposits of $21.5 million and money market funds of $4.2 million with maturities of less than 90 days at the date of purchase. At December 31, 2015, cash and cash equivalents consisted of demand deposits of $23.2 million and money market funds of $42.6 million with maturities of less than 90 days at the date of purchase.

Marketable Securities

At December 31, 2015, marketable securities of $0.5 million consisted of an investment in the common stock of a public entity. In August 2016, the Company sold its marketable securities and recognized a gain of $0.1 million in the

Company's consolidated statement of comprehensive loss. Accordingly, as of December 31, 2016, the Company did not hold any marketable securities.

Foreign Exchange Options

The Company holds debt and may incur revenue and expenses denominated in foreign currencies, which exposes it to market risk associated with foreign currency exchange rate fluctuations between the U.S. dollar and the Euro. The Company is required in the future to make principal and accrued interest payments in Euros on its €15.0 million loan from Les Laboratories Servier ("Servier") (see Note 8). In order to manage its foreign currency exposure related to these payments, in May 2011, the Company entered into two foreign exchange option contracts to buy €1.5 million and €15.0 million in January 2014 and January 2016, respectively. By having these option contracts in place, the Company's foreign exchange rate risk was reduced if the U.S. dollar weakens against the Euro. However, if the U.S. dollar strengthens against the Euro, the Company was not required to exercise these options, but would not receive any refund on premiums paid.

Upfront premiums paid on these foreign exchange option contracts totaled $1.5 million. The fair values of these option contracts were revalued at each reporting period and were estimated based on pricing models using readily observable inputs from actively quoted markets. The fair values of these option contracts were included in other assets on the consolidated balance sheet and changes in fair value on these contracts were included in other income (expense), net on the consolidated statements of comprehensive loss.

As of December 31, 2016, the Company has no foreign exchange option contracts outstanding. The Company recognized losses of zero, $6,000 and $0.4 million, related to the revaluation of these options for the years ended December 31, 2016, 2015, and 2014, respectively.

Trade and Other Receivables, net

Trade receivables are stated at their net realizable value. Specific allowances are recorded for doubtful accounts or based on other available information. The Company reviews their exposure to accounts receivable, including the requirement for allowances based on management's judgment. The Company has not historically experienced any significant losses. As of December 31, 2016 and 2015, the allowance for doubtful accounts amounted to $13,000 and $0.2 million, respectively.

Trade and other receivables consisted of the following (in thousands):

	December 31,	
	2016	2015
Trade receivables, net	$474	$3,718
Other receivables	92	351
Total	$566	$4,069

Property and Equipment, net

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

	December 31,	
	2016	2015
Equipment and furniture	$14,023	$14,431
Leasehold improvements	554	2,776
Construction-in-progress	—	243
	14,577	17,450
Less: Accumulated depreciation and amortization	(13,541)	(15,453)
Property and equipment, net	$1,036	$1,997

As of December 31, 2016, property and equipment held under capital leases, included under equipment and furniture above, amounted to $0.3 million, with accumulated amortization of $0.1 million. As of December 31, 2015, property and equipment held under capital leases, included under construction-in-progress above, amounted to $0.2 million, with accumulated amortization of zero. Depreciation and amortization expense was $0.8 million, $1.5 million, and

$1.9 million for the years ended December 31, 2016, 2015, and 2014, respectively. In December 2015, the Company completed the sale of its land, building and certain equipment used for its manufacturing operations (see Note 6). The related cost and accumulated depreciation and amortization amounts of $15.9 million and $13.7 million, respectively, have been removed from the consolidated balance sheet and a gain of $3.5 million was recorded on the other income (expense), net line of the Company's consolidated statement of comprehensive loss.

In connection with the restructuring implemented in December 2016, the Company determined that the leasehold improvements located in one of its leased facilities are no longer expected to be used by the Company. The Company determined that an impairment charge equal to the net book value of the leasehold improvements of $0.2 million should be recorded as the economic value, if any, that may be realized from the leasehold improvements would be negligible in a sublease transaction. The impairment charge is reflected within the restructuring charge in the consolidated statement of comprehensive loss for the year ended December 31, 2016. There were no impairment charges recognized during the years ended December 31, 2015 and 2014.

Accrued and Other Liabilities

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

	December 31,	
	2016	2015
Accrued payroll and other benefits	$1,582	$2,156
Accrued legal and accounting fees	385	517
Accrued clinical trial costs	743	406
Accrued incentive compensation	—	2,609
Other	1,505	878
Total	$4,215	$6,566

4. Collaborative, Licensing and Other Arrangements

Collaborative and Other Agreements

Novartis

In November 2008, the Company restructured its product development collaboration with Novartis AG (“Novartis”) entered into in 2004 for the development and commercialization of antibody products for the treatment of cancer. Under the restructured agreement, the Company could, in the future, receive potential milestones of up to $14.0 million and royalty rates which ranged from low double-digit to high-teen percentage rates for two ongoing product programs, CD40 and prolactin receptor antibodies and options to develop or receive royalties on additional programs. In exchange, Novartis received control over the CD40 and prolactin receptor antibody programs, as well as the right to expand the development of these programs into additional indications outside of oncology.

Novartis has returned control of the prolactin receptor antibody program to the Company; which is now referred to as X213. The Company’s right to royalty-style payments expires on the later of the expiration of any licensed patent covering each product or 20 years from the launch of each product that is produced from a cell line provided to Novartis by the Company. In 2016, 2015, and 2014, no revenue was recognized under the collaboration agreement with Novartis.

A loan facility of up to $50.0 million was available to the Company to fund up to 75% of its share of development expenses incurred beginning in 2005 (see Note 8).

On September 30, 2015 (the “Effective Date”), the Company and 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 (the “anti-TGF Program”). Under the terms of the License Agreement, Novartis International has worldwide rights to the anti-TGF Program and is responsible for the development and commercialization of antibodies and products containing antibodies arising from the anti-TGF Program. Within 90 days of the Effective Date, the Company was required to transfer certain proprietary know-how, materials and inventory relating to the anti-TGF Program to Novartis International. The transfer of certain proprietary know-how, materials and inventory relating to the anti-TGF Program

to Novartis International was completed in the fourth quarter of 2015.

Under the License Agreement, the Company received a $37.0 million upfront fee. The Company is also eligible to receive up to a total of $480.0 million in development, regulatory and commercial milestones. Any such payments will be treated as contingent consideration and recognized as revenue when they are achieved, as the Company has no performance obligations under the License Agreement beyond the initial 90-day period. No milestone payments have been received as of December 31, 2016. 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.

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 identified the following performance deliverables under the License Agreement: (i) the license, (ii) regulatory services to be delivered within 90 days from the Effective Date and (iii) transfer of materials, process and know-how, also to be delivered within 90 days from the Effective Date. The Company considered the provisions of the multiple-element arrangement guidance in determining how to recognize the revenue associated with these deliverables. The Company determined that none of the deliverables have standalone value and therefore has accounted for them as a single unit of account. The Company recognized the entire upfront payment as revenue in the consolidated statement of comprehensive loss in 2015 as it had completed its performance obligations as of December 31, 2015.

In connection with the execution of the License Agreement, XOMA and Novartis Vaccines Diagnostics, Inc. ("NVDI") executed an amendment to their Amended and Restated Research, Development and Commercialization Agreement dated July 1, 2008, as amended, relating to anti-CD40 antibodies (the "Collaboration Agreement Amendment"). Pursuant to the Collaboration Agreement Amendment, the parties agreed to reduce the royalty rates and period that XOMA is eligible to receive on sales of NVDI's clinical stage anti-CD40 antibodies. These royalties are tiered based on sales levels and now range from a mid-single digit percentage rate to up to a low double-digit percentage rate and royalties are payable until the later of any licensed patent covering each product or ten years from the launch of each product. In addition, XOMA and NVDI amended the note agreement to extend the maturity date of the note from September 30, 2015 to September 30, 2020 (see Note 8). All other terms of the Amended and Restated Research, Development and Commercialization Agreement remained unchanged.

Servier

In December 2010, the Company entered into a license and collaboration agreement ("Collaboration Agreement") with Servier, to jointly develop and commercialize gevokizumab in multiple indications, which provided for a non-refundable upfront payment of $15.0 million that was received by the Company in January 2011. In addition, the Company received a loan of €15.0 million, which was fully funded in January 2011, with the proceeds converting to $19.5 million at the date of funding (see Note 8). Under the terms of the Collaboration Agreement, Servier had worldwide rights to cardiovascular disease and diabetes indications and had rights outside the United States and Japan to all other indications, including non-infectious intermediate, posterior or pan-uveitis, Behçet's disease uveitis, pyoderma gangrenosum, and other inflammatory and oncology indications. XOMA retained development and commercialization rights in the United States and Japan for all indications other than cardiovascular disease and diabetes.

Under the Collaboration Agreement, Servier funded all activities to advance the global clinical development and future commercialization of gevokizumab in cardiovascular-related diseases and diabetes. Also, Servier funded the first $50.0 million of gevokizumab global clinical development and chemistry, manufacturing and controls expenses related to the three pivotal clinical trials under the EYEGUARD program. All remaining expenses related to these three pivotal clinical trials were shared equally between Servier and the Company. For the years ended December 31, 2016, 2015, and 2014, the Company recorded revenue of $0.6 million, $1.2 million and $3.5 million, respectively, from this Collaboration Agreement.

On January 9, 2015, concurrent with a loan amendment (see Note 8), the Company and Servier entered into Amendment No. 2 to the Collaboration Agreement ("Collaboration Amendment"). Under the Collaboration Agreement, the Company was eligible to receive up to approximately €356.5 million in the aggregate in milestone payments if the Company re-acquired cardiovascular and/or diabetes rights for use in the United States, and approximately €633.8 million in aggregate milestone payments if the Company did not re-acquire those rights. Under the Collaboration Amendment, the Company was eligible to receive up to €341.5 million in the aggregate in milestone payments in the

event the Company re-acquired the cardiovascular and/or diabetes rights for use in the United States and approximately €618.8 million if the Company did not re-acquire those rights. The milestone reductions were related to a low prevalence indication for which Servier would not have pursued development had these payments been required. All other terms of the Collaboration Agreement remained unchanged.

On September 28, 2015, Servier notified XOMA of its intention to terminate the Collaboration Agreement, as amended, and return the gevokizumab rights to XOMA. The termination, which became effective on March 25, 2016, did not result in a change to the maturity date of the Company's loan with Servier (see Note 8). As the Company is no longer required to provide services to Servier under the Collaboration Agreement, the Company recognized all remaining deferred revenue of $0.6 million from the date of notification to March 25, 2016. The Company and Servier completed the final reconciliation of cost sharing under the collaboration and all related adjustments are reflected in the consolidated statement of comprehensive loss for the year ended December 31, 2016.

NIAID

In September 2008, the Company announced that it had been awarded a $64.8 million multiple-year contract funded with federal funds from NIAID (Contract No. HHSN272200800028C), to continue the 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 recognizes revenue under the arrangement as the services are performed on a proportional performance basis. Consistent with the Company's other contracts with the U.S. government, invoices are 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 a NIAID review of hours and external expenses, XOMA agreed to exclude certain hours and external expenses resulting in a $1.8 million adjustment to decrease previously invoiced balances. The adjustment was offset by a $1.9 million deferred revenue balance that was recorded in 2012 as a result of a rate adjustment for the period 2007 to 2009. This adjustment reduced accounts receivable and deferred revenue by $1.8 million to reflect the final settlement of the 2008 to 2013 hours and external review. NIAID has deferred payment of the remaining $0.4 million in accounts receivable pending the final agreement on the ongoing 2010 to 2013 final rate submission. The remaining $0.1 million in deferred revenue in connection with the 2011 NIH rate audit will be recognized upon completion of negotiations with and approval by the NIH. The Company recognized revenue of zero, $0.2 million and $1.2 million under this contract, for the years ended December 31, 2016, 2015, and 2014, respectively.

In October 2011, the Company announced that NIAID had awarded the Company a new contract under Contract No. HHSN272201100031C ("NIAID 4") for up to $28.0 million over five years to develop broad-spectrum antitoxins for the treatment of human botulism poisoning. The contract work was being performed on a cost plus fixed fee basis over the life of the contract and the Company recognized revenue under the arrangement as the services were performed on a proportional performance basis. The Company recognized revenue of $1.1 million, $4.9 million and $8.4 million under this contract, for the years ended December 31, 2016, 2015, and 2014, respectively. In March 2016, the Company effected a novation of the NIAID 4 to Nanotherapeutics. The novation was effected upon obtaining government approval to transfer the contract to Nanotherapeutics pursuant to the asset purchase agreement executed in November 2015 (see Note 6).

Takeda

In November 2006, the Company entered into a collaboration agreement with Takeda for therapeutic monoclonal antibody discovery and development. Under the agreement, Takeda will make up-front, annual maintenance and milestone payments to the Company, fund its research and development and manufacturing activities for preclinical and early clinical studies and pay royalties on sales of products resulting from the collaboration. Takeda will be responsible for clinical trials and commercialization of drugs after an Investigational New Drug Application submission and is granted the right to manufacture once the product enters into Phase 2 clinical trials. The Company will recognize revenue on the annual payments when they are received, on the milestones when they are achieved and on the royalties when the underlying sales occur. The Company recognized revenue of $0.1 million, $0.1 million and $1.6 million under this agreement for the years ended December 31, 2016, 2015, and 2014, respectively.

Under the terms of this agreement, the Company may receive 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. In addition, in the event Takeda were to develop additional future qualifying product candidates under the terms of the agreement, the Company would be eligible for milestone payments aggregating up to $20.8 million for each such qualifying product candidate. The Company's 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 of all research and

development activities with respect to all program antibodies, collaboration targets or collaboration products. The Company's 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, the Company expanded its existing collaboration agreement with Takeda to provide Takeda with access to multiple antibody technologies, including a suite of research and development technologies and integrated information and data management systems. The Company 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. The Company's 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 of all research and development activities with respect to all program antibodies, collaboration targets or collaboration products. The Company's 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.

Pfizer

In August 2007, the Company entered into a license agreement (the "2007 Agreement") with Pfizer Inc. ("Pfizer") for non-exclusive, worldwide rights for XOMA's patented bacterial cell expression technology for research, development and manufacturing of antibody products. From 2011 through 2015, the Company received milestone payments aggregating $4.2 million.

On December 3, 2015, the Company and Pfizer entered into a settlement and amended license agreement pursuant to which XOMA granted Pfizer a fully-paid, royalty-free, worldwide, irrevocable, non-exclusive license right to XOMA's patented bacterial cell expression technology for phage display and other research, development and manufacturing of antibody products. Under the amended license agreement, the Company received a cash payment of $3.8 million in full satisfaction of all obligations to XOMA under the 2007 Agreement, including but not limited to potential milestone, royalty and other fees under the 2007 Agreement. The Company recognized the entire payment from Pfizer as revenue upon delivery of the license in 2015.

In August 2005, the Company entered into a license agreement with Wyeth (subsequently acquired by Pfizer) for non-exclusive, worldwide rights for certain of XOMA's patented bacterial cell expression technology for vaccine manufacturing. Under the terms of this agreement, the Company received a milestone payment in November 2012 relating to TRUMENBA®, a meningococcal group B vaccine marketed by Pfizer. The Company received a fraction of a percentage of sales of TRUMENBA as royalties. The Company's right to royalties expires on a country-by-country basis upon the expiration of the last-to-expire licensed patent. The Company recognized $0.4 million of royalties earned from the sales of TRUMENBA during the year ended December 31, 2016. The royalties on sales of TRUMENBA for the years ended December 31, 2015 and 2014 were not material. As discussed below under Sale of Future Revenue Streams, the Company sold its right to receive milestones and royalties on future sales of products to HealthCare Royalty Partners II, L.P. ("HCRP") in connection with the Royalty Interest Acquisition Agreement entered into in December 2016.

Novo Nordisk

On December 1, 2015, the Company and Novo Nordisk A/S ("Novo Nordisk ") entered into a license agreement under which XOMA has granted to Novo Nordisk an exclusive, world-wide, royalty-bearing license to XOMA's XMetA program of allosteric monoclonal antibodies that positively modulate the insulin receptor (the "XMetA Program"), subject to XOMA's retained commercialization rights for rare disease indications. Novo Nordisk has an option to add these retained rights to its license upon payment of an option fee.

Novo Nordisk obtained worldwide rights to the XMetA Program and is solely responsible at its expense for the development and commercialization of antibodies and products containing antibodies arising from the XMetA Program, subject to the Company's retained rights described above. The Company has transferred certain proprietary know-how and materials relating to the XMetA Program to Novo Nordisk. Under the agreement, the Company received a $5.0 million, non-creditable, non-refundable, upfront payment. Based on the achievement of pre-specified criteria, the Company is eligible to receive up to $290.0 million in development, regulatory and commercial milestones. No milestone payments have been received as of December 31, 2016. 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 high single digit percentage rate. Novo Nordisk's obligation to pay development and commercialization milestones will continue for so long as Novo Nordisk is developing or selling products under the agreement, subject to the maximum milestone payment amounts set forth above. Novo Nordisk'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.

The agreement contains customary termination rights relating to material breach by either party. Novo Nordisk also has a unilateral right to terminate the agreement in its entirety upon 90 days' notice.

The Company identified the following performance deliverables under the agreement: (i) the license, and (ii) the transfer of technology and know-how to be delivered within 60 days from December 1, 2015. The Company delivered the majority of the technology and know-how to Novo Nordisk as of December 31, 2015 and determined that any remaining items are perfunctory to the arrangement. Accordingly, the Company recognized the entire $5.0 million upfront fee as revenue in 2015.

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 (now Pfizer, Inc.) 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. Under the second Acquisition Agreement, 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 deferred revenue, to be recognized as contract and other revenue 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 a litigation or 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 has recorded the total proceeds of $18.0 million as deferred revenue. The deferred revenue will be recognized as contract and other 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 proceeds received from HCRP to the payments expected to be made to HCRP over the term of the Acquisition Agreements, and then applying that ratio to the period's cash payment. There was no revenue recognized under these arrangements during the year ended December 31, 2016 as the Acquisition Agreements include an economic commencement date of January 1, 2017.

5. 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 and 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, 2016 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]	$4,161	$ —	$ —	$4,161

	Fair Value Measurements at December 31, 2015 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]	$42,590	$ —	$ —	$42,590
Marketable securities	496	—	—	496
Total	$43,086	$ —	$ —	$43,086
Liabilities:				
Contingent warrant liabilities	$—	$ —	$ 10,464	$10,464

(1) Included in cash and cash equivalents

During the years ended December 31, 2016 and 2015, there were no transfers between Level 1, Level 2, or Level 3 assets or liabilities reported at fair value on a recurring basis and the valuation techniques used did not change compared to the Company’s established practice.

The estimated fair value of the remaining foreign exchange option contract as of December 31, 2015 was zero. The estimated fair value of the foreign exchange option contract at December 31, 2015 was determined using readily observable market inputs from actively quoted markets obtained from various third-party data providers. These inputs, such as spot rate, forward rate and volatility have been derived from readily observable market data, meeting the criteria for Level 2 in the fair value hierarchy. The change in the fair value is recorded in other income (expense), net line of the consolidated statements of comprehensive loss. In January 2016, the foreign exchange option contract expired.

The estimated fair value of the contingent warrant liabilities was determined using the Black-Scholes Model, which requires inputs such as the expected term of the warrants, volatility and risk-free interest rate. These inputs are subjective and generally require significant analysis and judgment to develop. The Company’s common stock price represents a significant input that affects the valuation of the warrants. The change in the fair value is recorded as a gain or loss in the revaluation of contingent warrant liabilities line of the consolidated statements of comprehensive loss.

The estimated fair value of the contingent warrant liabilities was estimated using the following range of assumptions at December 31, 2016 and 2015:

December 31,

	2016	2015
Expected volatility	64%	166% - 183%
Risk-free interest rate	0.51%	0.64% - 0.74%
Expected term (in years)	0.19	0.94 - 1.19

The following table provides a summary of changes in the fair value of the Company's Level 3 financial liabilities for the years ended December 31, 2016 and 2015 (in thousands):

Balance at December 31, 2014	$31,828
Reclassification of contingent warrant liability to equity upon exercise of warrants	(3,552)
Decrease in estimated fair value of contingent warrant liabilities upon revaluation	(17,812)
Balance at December 31, 2015	10,464
Decrease in estimated fair value of contingent warrant liabilities upon revaluation	(10,464)
Balance at December 31, 2016	$—

The fair value of the Company's outstanding interest-bearing obligations 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 interest-bearing obligations at December 31, 2016 and 2015 are as follows (in thousands):

	December 31, 2016		December 31, 2015	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
Hercules term loan	$16,850	$ 16,453	$19,653	$21,231
Servier loan	12,231	12,242	15,331	15,185
Novartis note	14,086	13,836	13,683	13,394
Total interest bearing obligations	$43,167	$ 42,531	$48,667	$49,810

6. Dispositions

Biodefense Assets

On November 4, 2015, the Company and Nanotherapeutics entered into an asset purchase agreement under which Nanotherapeutics agreed to acquire XOMA's biodefense business and related assets (including, subject to government approval, certain contracts with the U.S. government), and to assume certain liabilities of XOMA. As part of that transaction, the parties certain conditions, entered into an intellectual property license agreement (the "Nanotherapeutics License Agreement"), under which XOMA agreed to license to Nanotherapeutics certain intellectual property rights related to the purchased assets. Under the Nanotherapeutics License Agreement, the Company is eligible to receive contingent consideration up to a maximum of $4.5 million in cash and 23,008 shares of common stock of Nanotherapeutics, based upon Nanotherapeutics achieving certain specified future operational objectives. In addition, the Company is eligible to receive 15% royalties on net sales of any future Nanotherapeutics products covered by or involving the related patents or know-how.

On March 17, 2016, the Company effected a novation of the NIAID 4 to Nanotherapeutics. On March 23, 2016, the Company completed the transfer of the NIAID 4 and certain related third-party service contracts and materials, and the grant of exclusive and non-exclusive licenses for certain of its patents and general know-how to Nanotherapeutics. The Company believes that the NIAID 4 and certain related third-party service contracts and materials related to the biodefense program transferred to Nanotherapeutics include a sufficient number of key inputs and processes necessary to generate output from a market participant's perspective. Accordingly, the Company has determined that such assets qualify as a business. The transaction had no impact on the Company's consolidated financial statements as of, and for the year ended, December 31, 2016. Any contingent consideration or royalties will be recognized in the consolidated statements of comprehensive loss when received.

Manufacturing Facility

On November 5, 2015, the Company and Agenus West, LLC, a wholly-owned subsidiary of Agenus Inc. (“Agenus”), entered into an asset purchase agreement under which Agenus agreed, to acquire XOMA’s manufacturing facility in Berkeley, California, together with certain related assets, including certain intellectual property related to the purchased assets under an intellectual property license agreement, and to assume certain liabilities of XOMA, in consideration for the payment to XOMA of up to $5.0 million in cash and the issuance to XOMA of shares of Agenus’ common stock having an aggregate value of up to $1.0 million.

On December 31, 2015, XOMA completed the sale of the manufacturing facility, including certain related equipment and furniture, and the grant of non-exclusive licenses for certain of its patents and general know-how to Agenus for cash consideration of $4.7 million, net of the assumed liabilities of $0.3 million at closing. In addition to the cash consideration, XOMA received 109,211 shares of common stock of Agenus with an aggregate value of $0.5 million, which the Company subsequently sold in August 2016. The remaining $0.5 million of Agenus common stock will only be received upon the Company’s satisfaction of certain organizational matters, which XOMA is unlikely to satisfy. Agenus also paid $0.2 million to the Company as consideration for the employees who would not have otherwise been retained by the Company had the manufacturing facility closed on October 31, 2015. At closing, the carrying value of the assets sold was $2.2 million. The Company believes that the assets related to the manufacturing facility and certain other assets sold to Agenus include all key inputs and processes necessary to generate output from a market participant’s perspective. Accordingly, the Company determined that such assets qualify as a business. The Company recorded the gain on the sale of a business of $3.5 million in the other income (expense), net line of the consolidated statement of comprehensive loss for the year ended December 31, 2015.

7. 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 addition, effective December 21, 2016, the Company's Chief Executive Officer retired from his position. Subsequent to the 2016 Restructuring, the Company further revised its strategy in early 2017 to prioritize out-licensing activities.

During the year ended December 31, 2016, the Company recorded charges of $3.8 million related to severance, other termination benefits and outplacement services in connection with the workforce reduction resulting from the 2016 Restructuring. The Company recognized $0.6 million of non-cash stock-based compensation as a result of the acceleration of a former executive's options and RSUs under his retention benefit agreement. In addition, the Company recognized an asset impairment charge of $0.2 million related to leasehold improvements. Of the $3.8 million total expenses recognized during 2016, the Company paid $0.2 million in 2016 and expects to pay the remaining $3.6 million in 2017.

On July 22, 2015, the Company announced the Phase 3 EYEGUARD-B study of gevokizumab in patients with Behçet's disease uveitis, run by Servier, did not meet the primary endpoint of increased time to first acute ocular exacerbation. Due to the results and the Company's belief they would be predictive of results in its other EYEGUARD studies, in August 2015, the Company announced its intention to end the EYEGUARD global Phase 3 program. On August 21, 2015, the Company, in connection with its efforts to lower operating expenses and preserve capital while continuing to focus on its endocrine product pipeline, implemented a restructuring plan (the "2015 Restructuring") that included a workforce reduction resulting in the termination of 52 employees during the second half of 2015.

During the years ended December 31, 2016 and 2015, the Company recorded a credit of $32,000 and a charge of $2.9 million, respectively, related to severance, other termination benefits and outplacement services in connection with the workforce reduction resulting from the 2015 Restructuring. In addition, the Company recognized additional restructuring charges of $29,000 and $0.8 million in contract termination costs in 2016 and 2015, respectively, which primarily include costs in connection with the discontinuation of the EYEGUARD studies.

In January 2012, the Company implemented a streamlining of operations, which resulted in a restructuring plan (the "2012 Restructuring") which included a reduction of XOMA's personnel by 84 positions, or 34%. During the year ended December 31, 2014, the Company incurred $0.1 million in restructuring charges related to facility costs resulting from the 2012 Restructuring. There were no such charges during the years ended December 31, 2016 and 2015.

The outstanding restructuring liabilities are included in accrued and other liabilities on the consolidated balance sheets. As of December 31, 2016 and 2015, the components of these liabilities are shown below (in thousands):

	Employee Severance and Other Benefits	Contract Termination Costs	Stock-based Compensation	Asset Impairment	Total
Balance at December 31, 2014	$ —	$ —	$ —	$ —	$—
Restructuring charges	2,933	766	—	—	3,699
Cash payments	(2,590)	(650)	—	—	(3,240)

Balance at December 31, 2015	343	116	—	—	459
Restructuring charges	3,720	29	619	198	4,566
Non-cash charges	—	—	(619)	(198)	(817)
Cash payments	(469)	(145)	—	—	(614)
Balance at December 31, 2016	$ 3,594	$ —	$ —	$ —	$3,594

8. Long-Term Debt and Other Financings

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 accrues at six-month London Interbank Offered Rate plus 2%, which was equal to 3.32% at December 31, 2016, and 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 does not exceed $50.0 million. The Company made this election for all interest payments. Accrued interest of $0.4 million, $0.3 million and $0.3 million was added to the principal balance of the note for the years ended December 31, 2016, 2015, and 2014, respectively. Loans under the Note Agreement were secured by the Company's interest in its collaboration with Novartis, including any payments owed to it thereunder. Under the terms of the arrangement as restructured in November 2008, the Company did not make any additional borrowings under the Novartis note.

In June 2015, the Company and NVDI, agreed to extend the maturity date of the Note Agreement from June 21, 2015, to September 30, 2015 (the "June 2015 Extension Letter").

On September 30, 2015, concurrent with the execution of the License Agreement with Novartis International as discussed in Note 4, XOMA and NVDI executed an amendment to the June 2015 Extension Letter (the "Secured Note Amendment") under which the parties further extended the maturity date of the June 2015 Extension Letter 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. All other terms of the original Note Agreement remain unchanged.

As required by its obligations under the collaboration with NVDI, in January 2014, the Company made a payment, equal to 25 percent of a $7.0 million milestone received, or $1.75 million, toward its outstanding debt obligation to NVDI.

As of December 31, 2016 and 2015, the outstanding principal balance under this Secured Note Amendment was $14.1 million and $13.7 million, respectively, and was included in interest bearing obligations – long term 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 up to €15.0 million. The loan was fully funded in January 2011, with the proceeds converting to approximately $19.5 million at that time. The loan is secured by an interest in the Company's intellectual property rights to all gevokizumab indications worldwide, excluding certain rights in the U.S. and Japan. Interest is calculated at a floating rate based on a Euro Inter-Bank Offered Rate and subject to a cap. The interest rate is reset semi-annually in January and July of each year. Interest for the six-month period from mid-July 2016 through mid-January 2017 was reset to 1.81%. Interest is payable semi-annually.

On January 9, 2015, Servier and the Company entered into Amendment No. 2 (“Loan Amendment”) to the Servier Loan Agreement initially entered into on December 30, 2010 and subsequently amended by a Consent, Transfer, Assumption and Amendment Agreement entered into as of August 12, 2013. The Loan Amendment extended the maturity date of the loan from January 13, 2016 to three tranches of principal to be repaid as follows: €3.0 million on January 15, 2016, €5.0 million on January 15, 2017, and €7.0 million on January 15, 2018. All other terms of the Servier Loan Agreement remained unchanged. The loan will be immediately due and payable upon certain customary events of default. In January 2016, the Company made payments of €3.0 million in principal and €0.2 million in accrued interest to Servier.

Upon initial issuance, the loan had a stated interest rate lower than the market rate based on comparable loans held by similar companies, which represents additional value to the Company. The Company recorded this additional value as a discount to the carrying value of the loan amount, at its fair value of $8.9 million. The fair value of this discount, which was determined using a discounted cash flow model, represents the differential between the stated terms and rates of the loan, and market rates. Based on the association of the loan with the collaboration arrangement, the Company recorded the offset to this discount as deferred revenue.

The loan discount was amortized to interest expense under the effective interest method over the remaining life of the loan. The loan discount balance at the time of the Loan Amendment was $1.9 million, which was being amortized over the remaining term of the Loan Amendment. The Company recorded non-cash interest expense resulting from the amortization of the loan discount of $0.6 million, $0.7 million and $1.9 million for the years ended December 31, 2016, 2015, and 2014, respectively. At December 31, 2016 and 2015, the net carrying value of the loan was $12.2 million and $15.3 million, respectively. For the year ended December 31, 2016, the Company recorded an unrealized foreign exchange gain of $5,000 related to the re-measurement of the loan discount. For the years ended December 31, 2015 and 2014, the Company recorded unrealized foreign exchange losses of $0.2 million and $0.3 million, respectively, related to the re-measurement of the loan discount.

On September 28, 2015, Servier terminated the Collaboration Agreement with the required 180-day notice and none of the acceleration clauses were triggered; therefore, the termination of the Collaboration Agreement had no impact on the loan balance.

The outstanding principal balance under this loan was $12.6 million and $16.4 million, using a euro to US dollar exchange rate of 1.052 and 1.091, as of December 31, 2016 and 2015, respectively. The Company recorded unrealized foreign exchange gains of $0.5 million, $1.9 million and $2.4 million for the years ended December 31, 2016, 2015 and 2014, related to the re-measurement of the loan.

In January 2017, the Company entered into Amendment No. 3 to the Servier Loan Agreement (“Amendment No. 3”). Amendment No. 3 extended the maturity date of the €5.0 million due on January 15, 2017 to July 15, 2017. The other terms of the loan remained unchanged.

General Electric Capital Corporation Term Loan

In December 2011, the Company entered into a loan agreement (the “GECC Loan Agreement”) with General Electric Capital Corporation (“GECC”).

In connection with the GECC Loan Agreement, the Company issued to GECC unregistered warrants that entitle GECC to purchase up to an aggregate of 13,158 unregistered shares of XOMA common stock at an exercise price equal to $22.80 per share. These warrants were exercisable immediately and had a five-year term, which expired in December 2016. As of December 31, 2016, all of these warrants expired unexercised.

In September 2012, the Company entered into an amendment to the GECC Loan Agreement which provided for an additional term loan in the amount of $4.6 million, increasing the term loan obligation to $12.5 million (the “Amended Term Loan”). The Company incurred debt issuance costs of approximately $0.2 million and was required to make a final payment fee in the amount of $875,000 on the date upon which the outstanding principal amount was required to be repaid in full. This final payment fee replaced the original final payment fee of $500,000. The debt issuance costs and final payment fee were being amortized and accreted, respectively, to interest expense over the term of the Amended Term Loan using the effective interest method.

In connection with the amendment, on September 27, 2012 the Company issued to GECC unregistered stock purchase warrants, which entitle GECC to purchase up to an aggregate of 1,967 shares of the Company’s common stock at an exercise price equal to $70.80 per share. These warrants are exercisable immediately and have a five-year term expiring in September 2017. As of December 31, 2016, all of these warrants were outstanding.

The Company allocated the aggregate proceeds of the GECC Term Loan between the warrants and the debt obligation based on their relative fair values. The estimated fair value of the warrants issued to GECC was determined using the Black-Scholes Model. The fair value of the warrants with the GECC Loan Agreement and the subsequent September

27, 2012 amendment had estimated fair values of $0.2 million and $0.1 million, respectively, and were recorded as a discount to the debt obligation, which was amortized over the term of the loan using the effective interest method. The warrants are classified in permanent equity on the consolidated balance sheets.

The GECC Term Loan was paid in full on February 27, 2015, when Hercules Technology Growth Capital, Inc. ("Hercules") and the Company entered into a loan and security agreement (the "Hercules Term Loan"), under which the Company borrowed $20.0 million. The Company used a portion of the proceeds under the Hercules Term Loan to repay GECC's outstanding principle balance, final payment fee, prepayment fee, and accrued interest totaling $5.5 million. A loss on extinguishment of $0.4 million from the payoff of the GECC Term Loan was recognized as interest expense during the year ended December 31, 2015.

Hercules Term Loan

On February 27, 2015 (“Closing Date”), the Company entered into the Hercules Term Loan as described above. The Hercules Term Loan has a variable interest rate that is the greater of either (i) 9.40% plus the prime rate as reported from time to time in The Wall Street Journal minus 7.25%, or (ii) 9.40%. The payments under the Hercules Term Loan were interest only until June 1, 2016 . The interest-only period was followed by equal monthly payments of principal and interest amortized over a 30-month schedule through the scheduled maturity date of September 1, 2018. As security for its obligations under the Hercules Term Loan, the Company granted a security interest in substantially all of its existing and after-acquired assets, excluding its intellectual property assets.

If the Company prepays the loan prior to the loan maturity date, it may pay Hercules a prepayment charge, based on a prepayment fee equal to 3.00% of the amount prepaid, if the prepayment occurs in any of the first 12 months following the Closing Date, 2.00% of the amount prepaid, if the prepayment occurs after 12 months from the Closing Date but prior to 24 months from the Closing Date, and 1.00% of the amount prepaid if the prepayment occurs after 24 months from the Closing Date. The Hercules Term Loan includes certain affirmative and restrictive covenants, but does not include any financial covenants, and also includes standard events of default, including payment defaults. Upon the occurrence of an event of default, a default interest rate of an additional 5% may be applied to the outstanding loan balances, and Hercules may subjectively accelerate all outstanding obligations to be immediately due and payable, and take such other actions as set forth in the Hercules Term Loan.

The Company incurred debt issuance costs of $0.5 million in connection with the Hercules Term Loan. The Company will be required to pay a final payment fee equal to $1.2 million on the maturity date, or such earlier date as the term loan is paid in full. The debt issuance costs and final payment fee are being amortized and accreted, respectively, to interest expense over the term of the term loan using the effective interest method. The Company recorded non-cash interest expense resulting from the amortization of the debt issuance costs and accretion of the final payment of $0.7 million and $0.5 million for the years ended December 31, 2016 and 2015, respectively.

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 the Company’s 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. The Company allocated the aggregate proceeds of the Hercules Term Loan between the warrants and the debt obligation. The fair value of the warrants issued to Hercules was determined using the Black-Scholes Model and was estimated to be $0.5 million. The estimated fair value of the warrants was recorded as a discount to the debt obligation. The debt discount is being amortized over the term of the loan using the effective interest method. The warrants are classified in stockholders’ (deficit) on the consolidated balance sheets. As of December 31, 2016, all of these warrants were outstanding.

On December 21, 2016, the Company entered into Amendment No. 1 (the “Amendment”) to the Hercules Term Loan. Under the Amendment, Hercules agreed to release its security interest in the assets subject to the Acquisition Agreements described in Note 4 above. In turn, in January 2017, the Company paid $10.0 million of the outstanding principal balance owed to Hercules. This amount was included in current interest bearing obligations as of December 31, 2016. All other terms of the Hercules Term Loan remain unchanged. The Company determined the Amendment resulted in a debt modification. As a result, the term loan will continue to be accounted for using the effective interest method, with a new effective interest rate based on revised cash flows calculated on a prospective basis upon the execution of the Amendment.

The Company evaluated the Hercules Term Loan in accordance with accounting guidance for derivatives and determined there was de minimis value to the identified derivative features of the loan at inception and December 31, 2016 and 2015.

As of December 31, 2016 and 2015, the outstanding principal balance of the Hercules Term Loan was $17.5 million and $20.0 million, respectively. At December 31, 2016 and 2015, the net carrying value of the Hercules Term Loan was $16.9 million and $19.7 million, respectively.

Aggregate future principal, final fee payments and discounts of the Company's total interest bearing obligations are as follows (in thousands):

Year Ending December 31,	Amounts
2017	$19,215
2018	11,907
2019	—
2020	15,981
	47,103
Less: Interest, final payment fee, discount and issuance cost	(3,936)
	43,167
Less: interest bearing obligations – current	(17,855)
Interest bearing obligations – non-current	$25,312

Interest Expense

Amortization of debt issuance costs and discounts are included in interest expense. Interest expense in the consolidated statements of comprehensive loss for the years ended December 31, 2016, 2015, and 2014 relates to the following debt instruments (in thousands):

	Year Ended December 31,		
	2016	2015	2014
Hercules loan	$2,628	$2,223	$—
Servier loan	892	1,083	2,330
GECC term loan	—	548	1,638
Novartis note	405	329	312
Other	21	11	23
Total interest expense	$3,946	$4,194	$4,303

9. Income Taxes

The Company has incurred significant losses and as such there was no income tax expense for the years ended December 31, 2016, 2015, and 2014.

Reconciliation between the tax provision computed at the federal statutory income tax rate of 34% and the Company's actual effective income tax rate is as follows:

	Year Ended December 31,		
	2016	2015	2014
Federal tax at statutory rate	34 %	34 %	34 %
Warrant valuation	7 %	29 %	40 %
Permanent items and other	2 %	-15 %	-1 %
Valuation allowance	-43 %	-48 %	-73 %
Total	0 %	0 %	0 %

The significant components of net deferred tax assets as of December 31, 2016 and 2015 were as follows (in thousands):

	December 31,	
	2016	2015
Capitalized research and development expenses	$53,557	$50,808
Net operating loss carryforwards	123,672	115,869
Research and development and other credit carryforwards	25,297	24,268
Other	15,400	18,748
Total deferred tax assets	217,926	209,693
Valuation allowance	(217,926)	(209,693)
Net deferred tax assets	$—	$—

The net increase in the valuation allowance was $8.2 million, $19.6 million, and $29.9 million for the years ended December 31, 2016, 2015, and 2014, respectively.

As of December 31, 2016, the Company had federal net operating loss carry-forwards of approximately $335.9 million and state net operating loss carry-forwards of approximately $196.0 million to offset future taxable income. The net operating loss carryforwards begin to expire in 2018 for federal and 2017 for state purposes. The net operating loss carry-forwards include $5.2 million which relates to stock option deductions that will be recognized through additional paid in capital when utilized. As such, these deductions are not reflected in the Company's deferred tax assets. No federal net operating loss carry-forward expired in 2016, 2015, and 2014. California net operating losses of $41.2 million, $22.4 million, and $54.3 million, expired in the years 2016, 2015, and 2014, 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 historical operating performance and carry-back potential, the Company has determined that total deferred tax assets should be fully offset by a valuation allowance.

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), the Company experienced ownership changes in 2009 and 2012 which substantially limit the future use of its pre-change Net Operating Losses ("NOLs") and certain other pre-change tax attributes per year. The Company has excluded the NOLs and R&D credits that will expire as a result of the annual limitations in the deferred tax assets as of December 31, 2016. To the extent that the Company does not utilize its 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 expire unused.

The Company files income tax returns in the U.S. federal jurisdiction, State of California, Maryland, Alabama and Texas. The Company's federal income tax returns for tax years 2013 and beyond remain subject to examination by the Internal Revenue Service. The Company's State income tax returns for tax years 2012 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,		
	2016	2015	2014
Balance at January 1	$9,666	$5,503	$4,274
Increase related to current year tax position	592	2,687	720
(Decrease) Increase related to prior year's tax positions	(1,633)	1,476	509
Balance at December 31	$8,625	$9,666	$5,503

As of December 31, 2016, the Company had a total of $7.0 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 the 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. As of December 31, 2016, the Company has not accrued interest or penalties related to uncertain tax positions.

10. 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

Under the ESPP approved by the Company's stockholders in May 1998 (the "1998 ESPP"), the Company was authorized to issue up to 233,333 shares of common stock to employees through payroll deductions at a purchase price per share equal to 95% of the closing price of XOMA shares on the exercise date. An employee could elect to have payroll deductions made under the 1998 ESPP for the purchase of shares in an amount not to exceed 15% of the employee's compensation.

In May 2015, the Company's stockholders approved the 2015 Employee Stock Purchase Plan (the "2015 ESPP") which replaced the 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.

During the years ended December 31, 2016, 2015, and 2014, employees purchased 7,070, 6,029, and 885 shares of common stock, respectively, under the ESPP plans. Net payroll deductions under 1998 ESPP and 2015 ESPP totaled $60,000, $170,000, and $74,000 for the years ended December 31, 2016, 2015, and 2014, respectively.

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 2016 and 2015 of $18,000 (or $24,000 for employees over 50 years of age) and for 2014 of $17,500 (or $23,000 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 $0.5 million, $0.8 million, and $1.0 million for the years ended December 31, 2016, 2015, and 2014, respectively, and 100% was paid in common stock in each year.

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 is intended to consolidate the Company's long-term incentive compensation under a single plan, by replacing the Option Plan, the Restricted Plan and the 1992 Directors Share Option Plan (the "Directors Plan") going forward, and to provide a more current set of terms under which to provide this type of compensation. In May 2014, the Company's stockholders approved an amendment to the Company's 2010 Plan to (a) increase the number of shares of common stock issuable over the term of the plan by an additional 267,500 to 938,560 shares in the aggregate and (b) provide that, for each stock appreciation right, restricted share, restricted stock unit, performance share, performance unit, dividend equivalent or other stock-based award issued, the number of available shares under the plan will be reduced by 1.18 shares.

In February 2016, the Company's Board of Directors 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 and recommended that the amendment be submitted to the Company's shareholders for approval at the 2016 annual meeting. At the May 2016 annual meeting, the shareholders approved an amendment to the 2010 Plan to, among other things, increase the aggregate number of shares authorized for issuance by 170,000 shares to an aggregate of 1,108,560 shares.

The 2010 Plan 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). Vesting periods vary based on awards granted, however, certain stock-based awards may vest immediately or may accelerate based on performance-driven measures.

As of December 31, 2016, the Company had 94,815 shares available for grant under the stock option plans. As of December 31, 2016, options and RSUs covering 671,493 shares of common stock were outstanding under the stock option plans.

Stock Options

Stock options generally vest monthly over four years for employees and one year for directors. In December of 2016, the Company granted 207,100 options to employees that will vest in one year from the grant date. 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.

Stock Option Plans Summary

The following table summarizes the Company's stock option activity:

	2016		2015		2014	
	Number of shares	Weighted Average Exercise Price Per Share	Number of shares	Weighted Average Exercise Price Per Share	Number of shares	Weighted Average Exercise Price Per Share
Outstanding at beginning of year	384,382	$ 126.46	384,948	$ 162.88	360,658	$ 168.05
Granted	234,962	6.29	89,844	75.56	94,487	133.88
Exercised	—	—	(8,177)	37.89	(45,737)	78.18
Forfeited, expired or cancelled	(51,052)	116.15	(82,233)	250.17	(24,460)	285.31
Outstanding at end of year	568,292	$ 77.70	384,382	$ 126.46	384,948	$ 162.88
Exercisable at end of year	315,384	$ 127.08	280,149	$ 138.29	245,346	$ 199.22
Weighted-average grant-date fair value		$ 4.90		$ 51.92		$ 98.85

The aggregate intrinsic value of stock options exercised in 2015, and 2014 was $0.4 million, and $2.9 million, respectively. No stock options were exercised in 2016.

As of December 31, 2016, there were 544,021 stock options vested and expected to vest with a weighted average exercise price per share of $80.52, aggregate intrinsic value of zero, and a weighted average remaining contractual term of 6.93 years. As of December 31, 2016, there were 315,384 stock options exercisable with an aggregate intrinsic value of zero and a weighted average remaining contractual term of 5.06 years.

As of December 31, 2016, $2.4 million of total unrecognized compensation expense related to stock options is expected to be recognized over a weighted average period of 1.1 years.

Restricted Stock Units

RSUs generally vest over three years for employees and one year for directors. In 2016, the Company granted 114,517 RSUs to employees that will vest one year from the date of grant. 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.

Unvested RSU activity for the year ended December 31, 2016 is summarized below:

	Number of Shares	Weighted-Average Grant-Date Fair Value
Unvested balance at January 1, 2016	106,205	$ 81.42
Granted	127,367	14.82
Vested	(108,649)	49.17
Forfeited	(33,695)	46.32
Unvested balance at December 31, 2016	91,228	$ 39.82

The total grant-date fair value of RSUs that vested in 2016, 2015, and 2014 was $5.3 million, $5.5 million and $3.9 million, respectively. As of December 31, 2016, $1.4 million of total unrecognized compensation expense related to employee RSUs was expected to be recognized over a weighted average period of 0.6 years.

Of the 91,228 outstanding RSUs as of December 31, 2016, 12,419 were forfeited upon termination in February 2017 of the majority of the employees included in the 2016 Restructuring.

Stock-based Compensation Expense

The fair value of stock options granted during the years ended December 31, 2016, 2015, and 2014, was estimated based on the following weighted average assumptions for:

	Year Ended December 31,		
	2016	2015	2014
Dividend yield	0 %	0 %	0 %
Expected volatility	101 %	84 %	92 %
Risk-free interest rate	1.84%	1.40 %	1.72 %
Expected term	5.6 years	5.6 years	5.6 years

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

	Year Ended December 31,		
	2016	2015	2014
Research and development	$2,805	$5,022	$5,557
Selling, general and administrative	4,221	4,705	5,215
Restructuring	619	—	—
Total stock-based compensation expense	$7,645	$9,727	$10,772

11. Net Loss per Share of Common Stock

Potentially dilutive securities are excluded from the calculation of diluted net loss per share of common stock 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 per share (in thousands):

	Year Ended December 31,		
	2016	2015	2014
Common stock options and RSUs	548	550	324
Warrants for common stock	894	960	104
Total	1,442	1,510	428

The following is a reconciliation of the numerators and denominators used in calculating basic and diluted net loss per share of common stock (in thousands):

	Year Ended December 31,		
	2016	2015	2014
Numerator			
Net loss, basic	$(53,530)	$(20,606)	$(38,301)
Adjustment for revaluation of contingent warrant liabilities	—	—	(39,512)
Net loss, diluted	$(53,530)	$(20,606)	$(77,813)
Denominator			
Weighted average shares outstanding used for basic net loss per share	6,021	5,890	5,372
Effect of dilutive warrants	—	—	395
Weighted average shares outstanding and dilutive securities used for diluted net loss per share	6,021	5,890	5,767
Basic net loss per share of common stock	$(8.89)	$(3.50)	$(7.13)
Diluted net loss per share of common stock	$(8.89)	$(3.50)	$(13.49)

12. Capital Stock

Registered Direct Offerings

On December 8, 2014, the Company completed a registered direct offering of 404,858 shares of its common stock, and accompanying warrants to purchase one share of common stock for each share purchased at an offering price of $98.80 per share to certain institutional investors. Total gross proceeds from the offering were approximately $40.0 million before deducting underwriting discounts, commissions and estimated offering expenses totaling approximately $2.3 million. The warrants, which represent the right to acquire up to an aggregate of 404,833 shares of common stock, were exercisable immediately, had a two-year term and an exercise price of $158.01 per share. As of December 31, 2016, all of these warrants expired unexercised.

ATM Agreements

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 the amount that can be sold under the Company’s registration statement on Form S-3 (File No. 333-201882) filed with the SEC on the same date. 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, on any other existing trading market for the Company's common stock or to or through a market maker. Cowen 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. Offering costs, consisting of legal, accounting, and filing fees, incurred in connection with the 2015 ATM Agreement are capitalized. The capitalized offering costs will be offset against proceeds from the sale of common stock under this agreement. In the event the offering is terminated, all capitalized offering costs will be expensed. As of December 31, 2016 and 2015, $0.2 million and $0.1 million, respectively, of offering costs were capitalized, which are included in prepaid expenses and other current assets in the consolidated balance sheets. For the year ended December 31, 2016, the Company sold a total of 10,365 shares of common stock under this agreement for aggregate gross proceeds of $56,000. Total offering costs of $56,000 were offset against the proceeds upon sale of common stock. There were no shares of common stock sold under the 2015 ATM Agreement during the year ended December 31, 2015.

Common Stock Warrants

As of December 31, 2016 and 2015, the following common stock warrants were outstanding:

Issuance Date	Expiration Date	Balance Sheet Classification	Exercise Price per Share	Number of Shares at December 31, 2016	2015
December 2011	December 2016	Stockholders' equity	$22.80	—	13,158
March 2012	March 2017	Contingent warrant liabilities	$35.20	479,277	479,277
September 2012	September 2017	Stockholders' equity	$70.80	1,967	1,967
December 2014	December 2016	Contingent warrant liabilities	$158.01	—	404,833
February 2015	February 2020	Stockholders' (deficit)	$66.20	9,063	9,063
February 2016	February 2021	Stockholders' (deficit)	$15.40	8,249	—
				498,556	908,298

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’ (deficit) on the consolidated balance sheet. As of December 31, 2016, all of these warrants were outstanding.

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’ (deficit) on the consolidated balance sheets. As of December 31, 2016, all of these warrants were outstanding.

In December 2014, in connection with a registered direct offering to select institutional investors, the Company issued two-year warrants to purchase up to an aggregate of 404,833 shares of the Company’s common stock at an exercise price of $158.01 per share. These warrants contained provisions that were contingent on the occurrence of a change in control, which could conditionally obligate the Company to repurchase the warrants for cash in an amount equal to their estimated fair value using the Black-Scholes Model on the date of such change in control. Due to these provisions, the Company accounted for the warrants issued in December 2014 as a liability at estimated fair value. In addition, the estimated fair value of the liability related to the warrants was revalued at each reporting period until the earlier of the exercise of the warrants, at which time the liability will be reclassified to stockholders’ equity at its then estimated fair value, or expiration of the warrants. On December 8, 2014, the date of issuance, the fair value of the warrants was estimated to be $10.3 million using the Black-Scholes Model. As of December 31, 2015, all of these warrants were outstanding and had an estimated fair value of $3.0 million. During the year ended December 31, 2016, the Company revalued the warrants using the Black-Scholes Model, and recorded a $3.0 million reduction in the estimated fair value as a gain on the revaluation of contingent warrant liabilities line of the Company’s consolidated statement of comprehensive loss. The decrease in the estimated fair value of the warrants is primarily due to the decrease in the market price of the Company’s common stock at December 31, 2016 compared to December 31, 2015. In December 2016, all of these warrants expired unexercised.

In September 2012, the Company issued to GECC five-year warrants in connection with the amendment to the GECC Loan Agreement (see Note 8) that entitle GECC to purchase up to an aggregate of 1,967 unregistered shares of the Company’s common stock at an exercise price equal to $70.80 per share. The warrants are classified in stockholders’

(deficit) on the consolidated balance sheets. As of December 31, 2016 and 2015, all of these warrants were outstanding.

In March 2012, in connection with an underwritten offering, the Company issued five-year warrants to purchase 741,729 shares of the Company’s common stock at an exercise price of $35.20 per share. These warrants contain provisions that are contingent on the occurrence of a change in control, which could conditionally obligate the Company to repurchase the warrants for cash in an amount equal to their estimated fair value using the Black-Scholes Model on the date of such change in control. Due to these provisions, the Company accounts for the warrants issued in March 2012 as a liability at estimated fair value. In addition, the estimated fair value of the liability related to the warrants is revalued at each reporting period until the earlier of the exercise of the warrants, at which time the liability will be reclassified to stockholders' equity at its then estimated fair value, or expiration of the warrants. The Company revalued the warrants at December 31, 2016 using the Black-Scholes Model and recorded a $7.5 million reduction in the estimated fair value as a gain on the revaluation of contingent warrant liabilities line of the Company’s consolidated statement of comprehensive loss. The decrease in the estimated fair value of the warrants is primarily due to the decrease in the market price of the Company’s common stock at December 31, 2016 compared to December 31, 2015. As of December 31, 2016 and 2015, 479,277 and 479,277, respectively, of these warrants were outstanding and had an estimated fair value of zero and $7.5 million, respectively.

13. Legal Proceedings, 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 Company’s achievement of certain developmental, regulatory and commercial milestones. 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.

Legal Proceedings

On July 24, 2015, a purported securities class action lawsuit was filed in the United States District Court for the Northern District of California, captioned Markette v. XOMA Corp., et al. (Case No. 3:15-cv-3425) against the Company, its Chief Executive Officer and its Chief Medical Officer. The complaint asserts that all defendants violated Section 10(b) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and SEC Rule 10b-5, by making materially false or misleading statements regarding the Company’s EYEGUARD-B study between November 6, 2014 and July 21, 2015. The plaintiff also alleges that Messrs. Varian and Rubin violated Section 20(a) of the Exchange Act. The plaintiff seeks class certification, an award of unspecified compensatory damages, an award of reasonable costs and expenses, including attorneys’ fees, and other further relief as the Court may deem just and proper. On May 13, 2016, the Court appointed a lead plaintiff and lead counsel. The lead plaintiff filed an amended complaint on July 8, 2016 asserting the same claims and adding a former director as a defendant. On September 2, 2016, defendants filed a motion to dismiss with prejudice the amended complaint. Plaintiff filed his opposition to the motion to dismiss on October 7, 2016. Defendants filed a reply on October 21, 2016. The judge in the case has advised that he will rule on the motion based on those pleadings, but has not yet issued a ruling. Based on a review of allegations, the Company believes that the plaintiff’s allegations are without merit, and intends to vigorously defend against the claims. Currently, the Company does not believe that the outcome of this matter will have a material adverse effect on its business or financial condition, although an unfavorable outcome could have a material adverse effect on its results of operations for the period in which such a loss is recognized. The Company cannot reasonably estimate the possible loss or range of loss that may arise from this lawsuit.

On October 1, 2015, a stockholder purporting to act on the behalf of the Company, filed a derivative lawsuit in the Superior Court of California for the County of Alameda, purportedly asserting claims on behalf of the Company against certain of officers and the members of Board of Directors of the Company, captioned Silva v. Scannon, et al. (Case No. RG15787990). The lawsuit asserts claims for breach of fiduciary duty, corporate waste and unjust enrichment based on the dissemination of allegedly false and misleading statements related to the Company’s EYEGUARD-B study. The plaintiff is seeking unspecified monetary damages and other relief, including reforms and improvements to the Company’s corporate governance and internal procedures. This action is currently stayed pending further developments in the securities class action. Management believes the allegations have no merit and intends to vigorously defend against the claims. Currently, the Company does not believe that the outcome of this matter will have a material adverse effect on its business or financial condition, although an unfavorable outcome could have a material adverse effect on its results of operations for the period in which such a loss is recognized. The Company cannot reasonably estimate the possible loss or range of loss that may arise from this lawsuit.

On November 16 and November 25, 2015, two derivative lawsuits were filed purportedly on the Company's behalf in the United States District Court for the Northern District of California, captioned Fieser v. Van Ness, et al. (Case No. 4:15-CV-05236-HSG) and Csoka v. Varian, et al. (Case No. 3:15-cv-05429-SI), against certain of the Company's officers and the members of its Board of Directors. The lawsuits assert claims for breach of fiduciary duty and other violations of law based on the dissemination of allegedly false and misleading statements related to the Company's EYEGUARD-B study. Plaintiffs seek unspecified monetary damages and other relief including reforms and improvements to the Company's corporate governance and internal procedures. Both actions are currently stayed pending further developments in the securities class action. Management believes the allegations have no merit and intends to vigorously defend against the claims. Currently, the Company does not believe that the outcome of this matter will have a material adverse effect on its business or financial condition, although an unfavorable outcome could have a material adverse effect on its results of operations for the period in which such a loss is recognized. The Company cannot reasonably estimate the possible loss or range of loss that may arise from this lawsuit

Operating Leases

As of December 31, 2016, the Company leased administrative, research facilities, 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. For each facility lease, the Company has two successive renewal options to extend the lease for five years upon the expiration of the initial lease term.

The Company estimates future minimum lease payments, excluding sub-lease income (in thousands):

Year Ending December 31,	Amounts
2017	$ 3,621
2018	3,728
2019	3,837
2020	3,940
2021	3,101
Thereafter	3,406
Total minimum lease payments	$ 21,633

Total rental expense, including other costs required under the Company’s leases, was approximately $3.8 million, $3.7 million and $3.5 million for the years ended December 31, 2016, 2015, and 2014, 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. The Company believes these costs will not be material to its operations.

On December 31, 2015, in conjunction with the closing of the asset purchase agreement with Agenus, the Company entered into sublease agreements with Agenus for portions of two leased buildings through December 31, 2016, subject to early termination by Agenus. The terms of the sublease agreements commenced on December 31, 2015, and were terminated under the early termination option on October 31, 2016. Under the terms of the sublease agreements, the Company received an aggregate of $0.3 million over the sublease term.

Capital Leases

During the year ended December 31, 2015, the Company entered into capital lease agreements for certain network hardware and equipment for use by the Company and its employees. The lease terms are for three years. The current portion of capital lease obligations is included in the accrued and other liabilities line and the noncurrent capital lease obligations is included in other liabilities – long term line in the consolidated balance sheets.

The following is a schedule of future minimum lease payments due under the capital lease obligation as of December 31, 2016 (in thousands):

Year Ending December 31,	Amounts
2017	$ 116
2018	72
Total capital lease obligations	188
Less: amount representing interest	(15)
Present value of net minimum capital lease payments	173
Less: current portion	(104)
Total noncurrent capital lease obligations	$ 69

14. 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. The Company has not encountered such issues during 2016 and 2015. The Company’s policy is to focus on investments with high credit quality and liquidity to limit the amount of credit exposure. The Company currently maintains a portfolio of cash equivalents and have not experienced any losses.

The Company has not experienced any significant credit losses and does not generally require collateral on receivables. For the year ended December 31, 2016, three customers represented 27%, 22%, and 19% of total revenues, and as of December 31, 2016, one customer represented 85% of the accounts receivable balance.

For the year ended December 31, 2015, one customer represented 67% of total revenues, and as of December 31, 2015, four customers represented 39%, 25%, 18% and 10% of the accounts receivable balance.

For the year ended December 31, 2014, two customers represented 51% and 28% of total revenues.

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 for the years ended December 31, 2016, 2015, and 2014 was as follows (in thousands):

	Year Ended December 31,		
	2016	2015	2014
United States	$3,822	$10,685	$11,756
Europe	1,642	44,662	5,510
Asia Pacific	100	100	1,600
Total	$5,564	$55,447	$18,866

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

15. Subsequent Events

From January 1 through March 14, 2017, the Company sold 110,252 shares of common stock under the 2015 ATM Agreement for aggregate net cash proceeds of $0.6 million.

In January 2017, the Company entered into Amendment No. 3 to the Servier Loan Agreement. Amendment No. 3 extended the maturity date of the portion of the loan equal to €5.0 million due on January 15, 2017 to July 15, 2017. The other terms of the loan remained unchanged

In February 2017, the Company executed an Amendment and Restatement to both the asset purchase agreement and Nanotherapeutics License Agreement primarily to (i) remove the obligation to issue 23,008 shares of common stock of Nanotherapeutics 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 Nanotherapeutics License Agreement. Of the $4.5 million, $3.0 million is contingent upon Nanotherapeutics achieving certain specified future operating objectives.

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 Biotechnology Value Fund, L.P. and certain of its affiliates (“BVF”) in a registered direct offering, for aggregate net proceeds of $24.9 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.

In February 2017, the Board of Directors approved the grant of 1,018,000 stock options to members of the board, executives, and non-executive employees, subject to future approval by the Company’s shareholders of a commensurate increase in the available shares under the 2010 Plan.

16. Quarterly Financial Information (unaudited)

The following is a summary of the quarterly results of operations for the years ended December 31, 2016 and 2015:

	Consolidated Statements of Operations Quarter Ended			
	March 31	June 30	September 30	December 31
	(In thousands, except per share amounts)			
2016				
Total revenues	$3,962	$443	$635	$524
Restructuring costs	(36)	21	—	(4,551)
Operating costs and expenses	(17,915)	(18,482)	(12,727)	(13,432)
Loss from operations	(13,989)	(18,018)	(12,092)	(17,459)
Other income (expense), net[1]	5,624	2,858	(433)	(21)
Net loss	$(8,365)	$(15,160)	$(12,525)	$(17,480)
Basic net loss per share of common stock	$(1.45)	$(2.57)	$(2.10)	$(2.89)
Diluted net loss per share of common stock	$(1.45)	$(2.57)	$(2.10)	$(2.89)
2015				
Total revenues [2]	$2,651	$2,539	$2,074	$48,183
Restructuring costs	—	—	(2,561)	(1,138)
Operating costs and expenses	(25,224)	(24,752)	(23,191)	(18,305)
(Loss) income from operations	(22,573)	(22,213)	(23,678)	28,740
Other income (expense), net [1]	855	(1,546)	23,198	(3,389)
Net (loss) income	$(21,718)	$(23,759)	$(480)	$25,351
Basic net (loss) income per share of common stock	$(3.74)	$(4.04)	$(0.08)	$4.27
Diluted net (loss) income per share of common stock [3]	$(3.74)	$(4.04)	$(0.08)	$4.24

(1) Fluctuations in 2016 and 2015 primarily relate to (losses) gains on the revaluation of the contingent warrant liabilities and a $3.5 million gain from the sale of the Company's manufacturing facility during the three months ended December 31, 2015 (see Note 6).

(2) In the fourth quarter of 2015, total revenues include upfront and milestone payments relating to various out-licensing arrangements, including a $37.0 million upfront payment from Novartis, a $5.0 million upfront payment from Novo Nordisk and a $3.8 million payment from Pfizer.

(3) For the quarter ended December 31, 2015, 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 the period.

Exhibit Number	Exhibit Description	Incorporation By Reference Form	SEC File No.	Exhibit	Filing Date
3.1	Certificate of Incorporation of XOMA Corporation	8-K	000-14710	3.1	01/03/2012
3.2	Certificate of Amendment of Certificate of Incorporation of XOMA Corporation	8-K	000-14710	3.1	05/31/2012
3.3	Certificate of Amendment of Certificate of Incorporation of XOMA Corporation	8-K	000-14710	3.1	05/28/2014
3.4	Certificate of Amendment to the Amended Certificate of Incorporation of XOMA Corporation	8-K	000-14710	3.1	10/18/2016
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	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 and 3.3				
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
4.4	Form of Warrant (March 2012 Warrants)	8-K	000-14710	4.1	03/07/2012
4.5	Form of Warrant (September 2012 Warrants)	8-K	000-14710	4.10	10/03/2012
4.6	Registration Rights Agreement, dated June 12, 2014, by and among XOMA Corporation, 667, L.P., Baker Brothers Life Sciences, L.P., and 14159, L.P.	8-K	000-14710	4.1	06/12/2014
4.7	Form of Warrants (February 2015 Warrants)	10-Q	000-14710	4.10	05/07/2015
4.8	Form of Warrants (February 2016 Warrants)	10-Q	000-14710	4.9	05/04/2016
4.9	Warrant Agreement, by and between XOMA Corporation and Hercules Technology III, L.P., dated February 27, 2015	10-Q	000-14710	4.9	05/04/2016
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	000-14710	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	000-14710	10.2A	03/11/2008
10.5*	2007 CEO Share Option Plan	8-K	000-14710	10.7	08/07/2007
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	000-14710	10.3A	03/11/2008
10.8*	Form of Share Option Agreement for 1992 Directors Share Option Plan (subsequent grants)	10-K	000-14710	10.3B	03/11/2008
10.9*	2002 Director Share Option Plan	S-8	333-151416	10.10	06/04/2008
10.10*	XOMA Corporation Amended and Restated 2010 Long Term Incentive and Stock Award Plan	S-8	000-14710	99.1	09/12/2014
10.11*	Form of Stock Option Agreement for Amended and Restated 2010 Long Term Incentive and Stock Award Plan	10-K	000-14710	10.6A	03/14/2012
10.12*	Form of Restricted Stock Unit Agreement for Amended and Restated 2010 Long Term Incentive and Stock Award Plan	10-K	000-14710	10.6B	03/14/2012

Exhibit Number	Exhibit Description	Incorporation By Reference Form	SEC File No.	Exhibit	Filing Date
10.13*	Management Incentive Compensation Plan as amended and restated	8-K	000-14710	10.3	11/06/2007
10.14*	CEO Incentive Compensation Plan	10-K	000-14710	10.4A	03/11/2008
10.15*	Amendment No. 1 to CEO Incentive Compensation Plan	10-K	000-14710	10.7B	03/14/2012
10.16*	2016 Incentive Compensation Plan	10-Q	000-14710	10.1	05/04/2016
10.17	Form of Amended and Restated Indemnification Agreement for Officers	10-K	000-14710	10.6	03/08/2007
10.18	Form of Amended and Restated Indemnification Agreement for Employee Directors	10-K	000-14710	10.7	03/08/2007
10.19	Form of Amended and Restated Indemnification Agreement for Non-employee Directors	10-K	000-14710	10.8	03/08/2007
10.20*	Amended and Restated Employment Agreement entered into between XOMA (US) LLC and Charles C. Wells, dated as of December 30, 2008	10-K/A	000-14710	10.7D	12/27/2010
10.21*	Officer Employment Agreement dated March 19, 2013 between XOMA Corporation and Paul Rubin	10-K	000-14710	10.23	03/12/3014
10.22*	Employment Agreement effective as of January 4, 2012 between XOMA (US) LLC and John Varian	10-K	000-14710	10.10G	03/14/2012
10.23*	Officer Employment Agreement dated March 10, 2014 between XOMA Corporation and Pat Scannon	10-K	000-14710	10.25	03/12/2014
10.24*	Change of Control Agreement entered into between XOMA Ltd. and John Varian, dated January 4, 2012	10-K	000-14710	10.12A	03/14/2012
10.25*	Retention Benefit Agreement entered into between XOMA Corporation and John Varian, dated March 11, 2014	10-K	000-14710	10.28	03/12/2014
10.26*	Employment Agreement by and between XOMA Corporation and Thomas Burns, dated as of April 3, 2015	10-Q	000-14710	10.4	05/07/2015
10.27*	2015 Employee Stock Purchase Plan	S-8	333-204367	99.1	05/21/2015
10.28*	Form of Subscription Agreement and Authorization of Deduction under the 2015 Employee Stock Purchase Plan	S-8	333-204367	99.2	05/21/2015

10.29*	Change of Control and Severance Agreement entered into between XOMA Corporation and Thomas Burns, dated October 28, 2015	10-K	000-14710	10.30	03/09/2016
10.30*	Change of Control Agreement entered into between XOMA Corporation and Jim Neal, dated January 3, 2011	10-K	000-14710	10.31	03/09/2016
10.31*	Employment Agreement entered into between XOMA Corporation and Jim Neal, dated October 29, 2014	10-K	000-14710	10.32	03/09/2016
10.32	Lease of premises at 804 Heinz Street, Berkeley, California dated February 13, 2013	10-K	000-14710	10.29	03/12/2014
10.33	Lease of premises at 2910 Seventh Street, Berkeley, California dated February 13, 2013	10-K	000-14710	10.30	03/12/2014
10.34	First amendment to lease of premises at 2910 Seventh Street, Berkeley, California dated February 22, 2013	10-K	000-14710	10.31	03/12/2014
10.35	Lease of premises at 5860 and 5864 Hollis Street, Emeryville, California dated February 13, 2013	10-K	000-14710	10.32	03/12/2014

Exhibit Number	Exhibit Description	Incorporation By Reference Form	SEC File No.	Exhibit	Filing Date
10.36†	License Agreement by and between XOMA Ireland Limited and MorphoSys AG, dated as of February 1, 2002	10-K	000-14710	10.43	02/01/2002
10.37†	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
10.38	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
10.39†	GSSM License Agreement, effective as of May 2, 2008, by and between Verenium Corporation (n/k/a BP Biofuels Advanced Technology Inc.) and XOMA Ireland Limited	10-K	000-14710	10.25A	03/10/2011
10.40†	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
10.41†	Amended and Restated Research, Development and Commercialization Agreement, executed November 7, 2008, by and between Novartis Vaccines and Diagnostics, Inc. (formerly Chiron Corporation) and XOMA (US) LLC	10-K	000-14710	10.24C	03/11/2009
10.42†	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. and XOMA (US) LLC	10-K	000-14710	10.25B	03/14/2012
10.43†	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
10.44	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
10.45	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
10.46†	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

10.47†	Discovery Collaboration Agreement dated September 9, 2009, by and between XOMA Development Corporation and Arana Therapeutics Limited	10-Q/A	000-14710	10.35	03/05/2010
10.48†	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
10.49†	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
10.50	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

Exhibit Number	Exhibit Description	Incorporation By Reference Form	SEC File No.	Exhibit	Filing Date
10.51	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-Q	000-14710	10.3	05/07/2015
10.52	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
10.53†	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
10.54	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
10.55†	Amendment to Amended and Restated Research, Development and Commercialization Agreement, dated September 30, 2015, by and between XOMA (US) LLC and Novartis Institutes for Biomedical Research, Inc.	10-Q	000-14710	10.4	11/06/2015
10.56	Sales Agreement, dated November 12, 2015, by and between XOMA Corporation and Cowen and Company, LLC	8-K	001-14710	10.1	11/12/2015
10.57†	License Agreement, dated December 1, 2015, by and between XOMA (US) LLC and Novo Nordisk A/S	10-K	001-14710	10.63	03/09/2016
10.58	Settlement and Amended License Agreement dated December 3, 2015, by and between XOMA (US) LLC, as a successor-in-interest of XOMA Ireland Limited and Pfizer Inc.	10-K	001-14710	10.64	03/09/2016
10.59†	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
10.60+	Protective Rights Agreement 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 Amended and Restated License Agreement, dated effective as of October 27, 2006, between XOMA (US) LLC and DYAX, Corp.				
10.61+	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
10.62+	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.

Exhibit Number	Exhibit Description	Incorporation By Reference			
		Form	SEC File No.	Exhibit	Filing Date
10.63+	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				
10.64+	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 Corporation and HealthCare Royalty Partners II, L.P.				
10.65+	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				
10.66+	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				
10.67	Subscription Agreement, dated February 10, 2017, by and among XOMA Corporation, Biotechnology Value Fund, L.P., and certain entities affiliated with BVF	424(b)(5)	333-201882	Annex A	02/13/2017
21.1+	Subsidiaries of the Company				
23.1+	Consent of 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
(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.