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

FORM 10-Q

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended March 31, 2019

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.)**
2200 Powell Street, Suite 310 Emeryville, California	**94608**
(Address of principal executive offices)	**(Zip Code)**

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

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

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

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

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

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

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

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

Title of each class:	**Trading symbol(s):**	**Name of each exchange on which registered:**
Common Stock, $0.0075 par value	XOMA	The Nasdaq Stock Market LLC

As of May 2, 2019, the registrant had 8,724,320 shares of common stock, $0.0075 par value per share, outstanding.

XOMA CORPORATION
FORM 10-Q
TABLE OF CONTENTS

PART I - FINANCIAL INFORMATION

ITEM 1. CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

XOMA CORPORATION
CONDENSED CONSOLIDATED BALANCE SHEETS
(in thousands, except share and per share amounts)

	March 31, 2019 (unaudited)	December 31, 2018 (Note 1)
ASSETS		
Current assets:		
Cash	$ 48,436	$ 45,780
Trade and other receivables	2,755	1,468
Prepaid expenses and other current assets	268	378
Total current assets	51,459	47,626
Property and equipment, net	53	59
Operating lease right-of-use assets	6,906	—
Long-term royalty receivables	15,375	15,000
Long-term equity securities	1,107	392
Other assets	834	708
Total assets	$ 75,734	$ 63,785
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 987	$ 1,244
Accrued and other liabilities	798	2,382
Operating lease liabilities	2,242	—
Unearned revenue recognized under units-of-revenue method	595	490
Contract liabilities	798	798
Current portion of long-term debt	1,729	789
Total current liabilities	7,149	5,703
Unearned revenue recognized under units-of-revenue method – long-term	16,807	17,017
Long-term debt	20,854	21,690
Long-term operating lease liabilities	6,406	—
Other liabilities – long-term	489	590
Total liabilities	51,705	45,000
Commitments and Contingencies (Note 11)		
Stockholders' equity:		
Convertible preferred stock, $0.05 par value, 1,000,000 shares authorized, 6,256 shares issued and outstanding at March 31, 2019 and December 31, 2018	—	—
Common stock, $0.0075 par value, 277,333,332 shares authorized, 8,724,320 and 8,690,723 shares issued and outstanding at March 31, 2019 and December 31, 2018, respectively	65	65
Additional paid-in capital	1,213,133	1,211,122
Accumulated deficit	(1,189,169)	(1,192,402)
Total stockholders' equity	24,029	18,785
Total liabilities and stockholders' equity	$ 75,734	$ 63,785

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

(Note 1) The condensed consolidated balance sheet as of December 31, 2018 has been derived from the audited consolidated financial statements as of that date included in the Company's Annual Report on Form 10-K for the year ended December 31, 2018.

XOMA CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME (LOSS)
(unaudited)
(in thousands, except per share amounts)

	Three Months Ended March 31,	
	2019	**2018**
Revenues:		
Revenue from contracts with customers	$ 8,026	$ 401
Revenue recognized under units-of-revenue method	105	62
Total revenues	8,131	463
Operating expenses:		
Research and development	256	432
General and administrative	5,939	5,168
Total operating expenses	6,195	5,600
Income (loss) from operations	1,936	(5,137)
Other income (expense), net:		
Interest expense	(429)	(170)
Other income, net	1,726	1,501
Net income (loss) and comprehensive income (loss)	3,233	(3,806)
Net income (loss) and comprehensive income (loss) available to common stockholders, basic	$ 1,881	$ (3,806)
Net income (loss) and comprehensive income (loss) available to common stockholders, diluted	$ 1,935	$ (3,806)
Basic net income (loss) per share available to common stockholders	$ 0.22	$ (0.46)
Diluted net income (loss) per share available to common stockholders	$ 0.21	$ (0.46)
Weighted average shares used in computing basic net income (loss) per share available to common stockholders	8,706	8,313
Weighted average shares used in computing diluted net income (loss) per share available to common stockholders	9,324	8,313

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

XOMA CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(unaudited)
(in thousands)

	Three Months Ended March 31, 2019						
	Convertible Preferred Stock		Common Stock		Additional Paid-In	Accumulated	Total Stockholders'
	Shares	Amount	Shares	Amount	Capital	Deficit	Equity
Balance, December 31, 2018	6	$ —	8,691	$ 65	$ 1,211,122	$ (1,192,402)	$ 18,785
Exercise of stock options	—	—	24	—	115	—	115
Issuance of common stock related to 401(k) contribution and ESPP	—	—	7	—	102	—	102
Vesting of restricted stock units	—	—	2	—	—	—	—
Stock-based compensation expense	—	—	—	—	1,728	—	1,728
Issuance of warrants	—	—	—	—	66	—	66
Net income and comprehensive income	—	—	—	—	—	3,233	3,233
Balance, March 31, 2019	6	$ —	8,724	$ 65	$ 1,213,133	$ (1,189,169)	$ 24,029

	Three Months Ended March 31, 2018						
	Convertible Preferred Stock		Common Stock		Additional Paid-In	Accumulated	Total Stockholders'
	Shares	Amount	Shares	Amount	Capital	Deficit	Equity
Balance, December 31, 2017	5	$ —	8,249	$ 62	$ 1,184,783	$ (1,179,059)	$ 5,786
Exercise of stock options	—	—	—	—	14	—	14
Issuance of common stock related to 401(k) contribution and ESPP	—	—	1	—	20	—	20
Vesting of restricted stock units	—	—	14	—	—	—	—
Stock-based compensation expense	—	—	—	—	1,416	—	1,416
Issuance of common stock	—	—	68	—	2,207	—	2,207
Net loss and comprehensive loss	—	—	—	—	—	(3,806)	(3,806)
Balance, March 31, 2018	5	$ —	8,332	$ 62	$ 1,188,440	$ (1,182,865)	$ 5,637

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

XOMA CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(unaudited)
(in thousands)

	Three Months Ended March 31,	
	2019	2018
Cash flows from operating activities:		
Net income (loss)	$ 3,233	$ (3,806)
Adjustments to reconcile net loss to net cash used in operating activities:		
Stock-based compensation expense	1,728	1,416
Common stock contribution to 401(k)	102	20
Depreciation and amortization	6	8
Amortization of debt issuance costs, debt discount and final payment on debt	110	—
Non-cash lease expense	(40)	—
Change in fair value of long-term equity securities	(715)	—
Other	—	(21)
Changes in assets and liabilities:		
Trade and other receivables	(1,329)	(39)
Prepaid expenses and other assets	42	53
Accounts payable and accrued liabilities	(116)	(1,593)
Unearned revenue recognized under units-of-revenue method	(105)	(62)
Income tax payable	—	29
Other liabilities	241	156
Net cash provided by (used in) operating activities	3,157	(3,839)
Cash flows from investing activities:		
Purchase of royalty rights in connection with Bioasis purchase agreement	(300)	—
Net cash used in investing activities	(300)	—
Cash flows from financing activities:		
Proceeds from issuance of common stock, net of issuance costs	—	2,309
Proceeds from exercise of options	237	14
Payment of preferred and common stock issuance costs	(376)	—
Principal payments – finance lease	(3)	(4)
Taxes paid related to net share settlement of equity awards	(59)	(3)
Net cash (used in) provided by financing activities	(201)	2,316
Effect of exchange rate changes on cash	—	20
Net increase (decrease) in cash	2,656	(1,503)
Cash at the beginning of the period	45,780	43,471
Cash at the end of the period	$ 48,436	$ 41,968
Supplemental Cash Flow Information:		
Cash paid for interest	$ 107	$ —
Non-cash investing and financing activities:		
Prepaid financing cost related to issuance of common stock	$ —	$ 100
Issuance of common stock warrant under SVB loan	$ 66	$ —
Estimated fair value of contingent consideration under the Bioasis Royalty Purchase Agreement	$ 75	$ —

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

1. Description of Business

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

Liquidity and Financial Condition

With the exception of the year ended December 31, 2017, the Company has incurred significant operating losses and negative cash flows from operations since its inception. As of March 31, 2019, the Company had cash of $48.4 million. Based on the Company's current cash balance and its ability to control discretionary spending, such as royalty acquisitions, the Company has evaluated and concluded there are no conditions or events that raise substantial doubt about its ability to continue as a going concern for a period of one year following the date that these condensed consolidated financial statements are issued.

2. Basis of Presentation and Significant Accounting Policies

Basis of Presentation

The condensed 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. The unaudited condensed consolidated financial statements were prepared in accordance with generally accepted accounting principles ("GAAP") in the United States for interim financial information and with the instructions to Form 10-Q and Article 10 of Regulation S-X. As permitted under those rules certain footnotes or other financial information can be condensed or omitted. These financial statements and related disclosures have been prepared with the assumption that users of the interim financial information have read or have access to the audited consolidated financial statements for the preceding fiscal year. Accordingly, these statements should be read in conjunction with the audited consolidated financial statements and related notes included in the Company's Annual Report on Form 10-K for the year ended December 31, 2018, filed with the U.S. Securities and Exchange Commission ("SEC") on March 7, 2019.

These financial statements have been prepared on the same basis as the Company's annual consolidated financial statements and, in the opinion of management, reflect all adjustments, consisting only of normal recurring adjustments that are necessary for a fair statement of the Company's consolidated financial information. The interim results of operations are not necessarily indicative of the results that may be expected for the full year.

Use of Estimates

The preparation of financial statements in conformity with GAAP 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 revenue recognition, long-term equity securities, debt amendments, long-lived assets, legal contingencies, income taxes and stock-based compensation. The Company bases its estimates on historical experience and on various other market-specific and other relevant assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources.

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

Revenue Recognition

Accounting Standards Codification ("ASC") Topic 606, *Revenue from Contracts with Customers* ("ASC 606") applies to all contracts with customers, except for contracts that are within the scope of other standards, such as leases, insurance, collaboration arrangements and financial instruments. Under ASC 606, the Company recognizes revenue when its customer obtains control of promised goods or services, in an amount that reflects the consideration which the Company expects to receive in exchange for those goods or services.

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

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

License of intellectual property

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

Milestone payments

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

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

Royalties

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

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

Sale of Future Revenue Streams

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

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

Stock-Based Compensation

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

The Company records compensation expense for service-based awards over the vesting period of the award on a straight-line basis. For awards with performance-based conditions, at the point that it becomes probable that the performance conditions will be met, the Company records a cumulative catch-up of the expense from the grant date to the current date, and then amortizes the remainder of the expense over the remaining service period. Management evaluates when the achievement of a performance-based condition is probable based on the expected satisfaction of the performance conditions as of the reporting date. The amount of stock-based compensation expense recognized during a period is based on the value of the portion of the awards that are ultimately expected to vest.

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

Equity Securities

The Company received shares of common stock from Rezolute in April 2018 (Note 4). Equity investments in Rezolute are classified in the condensed consolidated balance sheets as long-term equity securities. The equity securities are measured at fair value, with changes in fair value recorded in other income (expense), net line item of the condensed consolidated statement of operations and comprehensive income (loss) at each reporting period. The Company remeasures its equity investments at each reporting period until such time that the investment is sold or disposed of. If the Company sells an investment, any realized gains and losses on the sale of the securities will be recognized in the condensed consolidated statement of operations and comprehensive income (loss) in the period of sale.

Purchase of Rights to Future Milestones and Royalties

The Company has purchased rights to receive a portion of certain future developmental, regulatory and commercial sales milestones, royalties and option fees on sales of products currently in clinical development. The Company acquired such rights from various entities in September 2018 and February 2019, and recorded the amount paid for these rights as long-term royalty receivables (refer to Note 5). The Company has accounted for the purchased rights as a financial asset in accordance with ASC 310, *Receivables*. In addition, under one of the purchase agreements, the Company may be obligated to make contingent payments related to certain product development milestones and fees upon exercise of options related to future license products. The contingent payments are evaluated whether they are freestanding instruments or embedded derivatives. If freestanding instruments, the contingent payments are measured at fair value on the inception of the arrangement, subject to remeasurement to fair value each reporting period. Any changes in the estimated fair value is recorded in the condensed consolidated statement of operations and comprehensive income (loss). The option fees are evaluated whether they meet the criteria to be considered as derivatives.

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

The Company reviews any impairment indicators and changes in expected recoverability of the long-term royalty receivable asset regularly. If expected future cash flows discounted to the current period are less than the carrying value of the asset, the Company will record impairment. The impairment will be recognized by reducing the financial asset to an amount that represents the present value of the most recent estimate of cash flows.

Leases

The Company has entered into lease agreements for its corporate office facility in Emeryville, California and for additional office and laboratory facilities in Berkley, California. Effective January 1, 2019, the Company adopted ASC Topic 842, *Leases* ("ASC 842") using the optional transition method and applied the standard only to leases that existed at that date. Under the optional transition method, the Company does not need to restate the comparative periods in transition and will continue to present financial information and disclosures for periods before January 1, 2019 in accordance with ASC Topic 840. The Company has elected the package of practical expedients allowed under ASC Topic 842, which permits the Company to account for its existing operating leases as operating leases under the new guidance, without reassessing the Company's prior conclusions about lease identification, lease classification and initial direct cost. As a result of the adoption of the new lease accounting guidance, on January 1, 2019, the Company recognized operating lease right-of-use assets of approximately $7.4 million and operating lease liabilities of approximately $9.2 million. The difference in the operating lease right-of-use assets and operating lease liabilities is primarily due to the carrying amount of lease-related restructuring liabilities of $1.7 million as of December 31, 2018 (see Note 8).

The Company determines the initial classification and measurement of its right-of-use assets and lease liabilities at the lease commencement date and thereafter if modified. The lease term includes any renewal options and termination options that the Company is reasonably assured to exercise. The present value of lease payments is determined by using the interest rate implicit in the lease, if that rate is readily determinable; otherwise, the Company uses its incremental borrowing rate. The incremental borrowing rate is determined by using the rate of interest that the Company would pay to borrow on a collateralized basis an amount equal to the lease payments for a similar term and in a similar economic environment.

Rent expense for operating leases is recognized on a straight-line basis, unless the right-of-use asset has been impaired, over the reasonably assured lease term based on the total lease payments and is included in operating expenses in the condensed consolidated statements of operations and comprehensive income.

For operating leases that reflect impairment, the Company will recognize the amortization of the right-of-use asset on a straight-line basis over the remaining lease term with rent expense still included in operating expenses in the condensed consolidated statements of operations and comprehensive income.

For all leases, rent payments that are based on a fixed index or rate at the lease commencement date are included in the measurement of lease assets and lease liabilities at the lease commencement date.

The Company has elected the practical expedient to not separate lease and non-lease components. The Company's non-lease components are primarily related to property maintenance and insurance, which varies based on future outcomes, and thus is recognized in rent expense when incurred.

Net Income (Loss) per Share Available to Common Stockholders

Basic net income (loss) per share available to common stockholders is based on the weighted average number of shares of common stock outstanding during the period. During periods of income, the Company allocates participating securities a proportional share of net income determined by dividing total weighted average participating securities by the sum of the total weighted average number of common stock and participating securities (the "two-class method"). The Company's convertible preferred stock participates in any dividends declared by the Company on its common stock and are therefore considered to be participating securities. For the three months ended March 31, 2019 and 2018, the Company did not declare any dividends.

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

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. As of March 31, 2019 and December 31, 2018, the Company had no cash equivalents and has not encountered any such liquidity issues during 2019.

The Company has not experienced any significant credit losses and does not generally require collateral on receivables. For the three months ended March 31, 2019, one partner represented 99% of total revenues. For the three months ended March 31, 2018, two partners represented 86% and 13% of total revenues. As of March 31, 2019, one partner represented substantially all of the trade receivables balance. As of December 31, 2018, two partners represented 67% and 28% of the trade receivables balance.

Recent Accounting Pronouncements

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

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

3. Condensed Consolidated Financial Statements Details

Long-term Equity Securities

As of March 31, 2019 and December 31, 2018, long-term equity securities consisted of an investment in Rezolute's common stock of $1.1 million and $0.4 million, respectively (see Note 4). The Company recognized a gain of $0.7 million due to the change in fair value of its investment in Rezolute's common stock in other income, net line item of the condensed consolidated statement of operations and comprehensive income for the three months ended March 31, 2019. There is no comparable gain or loss recognized for the three months ended March 31, 2018 as the long-term equity securities were received in the second quarter of 2018.

Accrued and Other Liabilities

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

	March 31, 2019	December 31, 2018
Accrued legal and accounting fees	$ 181	$ 396
Accrued restructuring	—	1,361
Accrued incentive compensation	209	152
Liability related to sublease	—	84
Accrued payroll and other benefits	127	155
Other	281	234
Total	$ 798	$ 2,382

Net Income (Loss) Per Share Available to Common Stockholders

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

	Three Months Ended March 31,	
	2019	2018
Numerator		
Net income (loss)	$ 3,233	$ (3,806)
Less: Allocation of undistributed earnings to participating securities	(1,352)	—
Net income (loss) available to common stockholders, basic	1,881	(3,806)
Add: Adjustments to undistributed earnings allocated to participating securities	54	—
Net income (loss) available to common stockholders, diluted	$ 1,935	$ (3,806)
Denominator		
Weighted average shares used in computing basic net income (loss) per share available to common stockholders	8,706	8,313
Effect of dilutive stock options	618	—
Weighted average shares used in computing diluted net income (loss) per share available to common stockholders	9,324	8,313
Basic net income (loss) per share available to common stockholders	$ 0.22	$ (0.46)
Diluted net income (loss) per share available to common stockholders	$ 0.21	$ (0.46)

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

	Three Months Ended March 31,	
	2019	2018
Convertible preferred stock	—	5,003
Common stock options and RSUs	830	1,645
Warrants for common stock	25	17
Total	855	6,665

4. Licensing and Other Arrangements

Novartis – Gevokizumab (VPM087) and IL-1 Beta

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

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

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

Based on the achievement of pre-specified criteria, the Company is eligible to receive up to $438.0 million in development, regulatory and commercial milestones under the XOMA-052 License Agreement. The Company is also eligible to receive royalties on sales of licensed products, which are tiered based on sales levels and range from the high single digits to mid-teens. Under the IL-1 Target License Agreement, the Company received an upfront cash payment of $10.0 million and is eligible to receive low single-digit royalties on canakinumab sales in cardiovascular indications covered by the Company's patents. Should Novartis exercise the Exclusivity Option, the royalties on canakinumab sales will increase to the mid-single digits.

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

The XOMA-052 License Agreement and IL-1 Target License Agreement were accounted for as one arrangement because they were entered into at the same time in contemplation of each other. The Company concluded that there are multiple promised goods and services under the combined arrangement, including the transfer of license to IL-1 beta targeting antibodies, and the transfer of license, know-how, process, materials and inventory related to the VPM087 antibody, which were determined to represent two distinct performance obligations. The Company determined that the Exclusivity Option is not an option with material right because the upfront payments to the Company were not negotiated to provide an incremental discount for the future additional royalties upon exercise of the Exclusivity Option. Therefore, the Company concluded that the Exclusivity Option is not a performance obligation. The additional royalties will be recognized as revenue when, and if, Novartis exercises its option because the Company has no further performance obligations at that point.

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

The Company concluded that the development and regulatory milestone payments are solely dependent on Novartis' performance and achievement of specified events. The Company determined that it is not probable that a significant cumulative revenue reversal will not occur in future periods for these future payments. Therefore, the development and regulatory milestones are fully constrained and excluded from the transaction price as of March 31, 2019. Any consideration related to commercial milestones (including royalties) will be recognized when the related sales occur as they were determined to relate predominantly to the licenses granted to Novartis and therefore, have also been excluded from the transaction price. At the end of each reporting period, the Company will update its assessment of whether an estimate of variable consideration is constrained and update the estimated transaction price accordingly.

As of March 31, 2019 and December 31, 2018, there were no contract assets or contract liabilities related to this arrangement. None of the costs to obtain or fulfill the contract were capitalized. In addition, the Company did not recognize any revenue related to this arrangement during the three months ended March 31, 2019 and 2018.

Novartis International – Anti-TGFβ Antibody (NIS793)

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

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

During the year ended December 31, 2017, Novartis International achieved a clinical development milestone pursuant to the License Agreement and, as a result, the Company earned a $10.0 million milestone payment which was recognized as license fees in the consolidated statement of operations and comprehensive income. As of March 31, 2019, the Company is eligible to receive up to a total of $470.0 million in development, regulatory and commercial milestones under the anti-TGFB anti-body agreement.

The Company concluded that the development and regulatory milestone payments are solely dependent on Novartis' performance and achievement of the specified events. The Company determined that it is not probable that a significant cumulative revenue reversal will not occur in future periods for these future payments. Therefore, the remaining development and regulatory milestones are fully constrained and excluded from the transaction price as of March 31, 2019. Any consideration related to commercial milestones (including royalties) will be recognized when the related sales occur as they were determined to relate predominantly to the licenses granted to Novartis and therefore, have also been excluded from the transaction price. At the end of each reporting period, the Company will update its assessment of whether an estimate of variable consideration is constrained and update the estimated transaction price accordingly.

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

As of March 31, 2019 and December 31, 2018, there were no contract assets or contract liabilities related to this arrangement. None of the costs to obtain or fulfill the contract were capitalized.

Rezolute

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

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

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

Rezolute has an option through June 1, 2019 to obtain an exclusive license for their choice of one of the Company's preclinical monoclonal antibody fragments, including X129 (the "Additional Product Option"), in exchange for a $1.0 million upfront option fee and additional clinical, regulatory and commercial milestone payments to the Company of up to $237.0 million in the aggregate based on the achievement of pre-specified criteria as well as royalties ranging from the high single digits to the mid-teens based on annual net sales. The license agreement contains customary termination rights relating to material breach by either party. Rezolute also has a unilateral right to terminate the license agreement in its entirety on ninety days' notice at any time. The Company has the right to terminate the license agreement if Rezolute challenges the licensed patents.

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

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

During the three months ended March 31, 2018, the Company completed the delivery of the license and related materials, product data/filing, process and know-how to Rezolute. However, the Company determined that it is not probable that the Company will collect substantially all of the consideration to which it was entitled in exchange for the goods or services transferred to Rezolute. Therefore, the Company determined no contract existed as of March 31, 2018 and no revenue was recognized during the three months ended March 31, 2018 under the arrangement.

Rezolute completed the Interim Financing Closing and the Initial Closing financing activities, as defined in the common stock purchase agreement, during the first and second quarter of 2018, respectively. As a result, XOMA received 8,093,010 shares of Rezolute's common stock and cash of $0.5 million in April 2018. Under the license agreement, XOMA was also entitled to receive $0.3 million of reimbursable technology transfer expenses from Rezolute. The Company concluded that the payment associated with the Initial Closing represents substantially all consideration for the delivered license and technology to Rezolute. Therefore, the Company determined that a contract exists between Rezolute and XOMA under ASC 606 on April 3, 2018.

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

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

The Company concluded that the development and regulatory milestone payments are solely dependent on Rezolute's performance and achievement of the specified events. The Company determined that it is not probable that a significant cumulative revenue reversal will not occur in future periods for these future payments. Therefore, the development and regulatory milestones are fully constrained and excluded from the transaction price as of March 31, 2019 and December 31, 2018. Any consideration related to commercial milestones (including royalties) will be recognized when the related sales occur as they were determined to relate predominantly to the licenses granted to Rezolute and therefore, have also been excluded from the transaction price. At the end of each reporting period, the Company will update its assessment of whether the estimate of variable consideration is constrained and update the estimated transaction price accordingly.

On January 7, 2019, the Company and Rezolute further amended the license agreement and common stock purchase agreement. The license agreement was amended to eliminate the requirement that equity securities valued at $8.5 million be issued to XOMA upon the closing of the Qualified Financing and replaced it with a requirement that Rezolute make five future cash payments to XOMA totaling $8.5 million through September 2020 (the "Future Cash Payments"). The amendment also provides for early payment of the Future Cash Payments (only until the $8.5 million is reached) by making cash payments to XOMA equal to 15% of the net proceeds of each future financing following the closing of the Qualified Financing, with such payments to be credited against any remaining unpaid Future Cash Payments in reverse order of their future payment date. In addition, the license agreement amendment revised the amount Rezolute is required to expend on development of RZ358 and related licensed products and revised provisions with respect to Rezolute's diligence efforts in conducting clinical studies and eliminated XOMA's right to appoint a member to Rezolute's board of directors.

The common stock purchase agreement was amended to remove certain provisions related to the issuance of equity to XOMA in accordance with the new provisions regarding the Future Cash Payments in the license agreement. Lastly, the common stock purchase agreement was amended to provide the Company the right and option to sell up to 5,000,000 shares of Rezolute's common stock currently held by XOMA back to Rezolute upon failure by Rezolute to list its shares of its common stock on the Nasdaq Stock Market or a similar national exchange on or prior to December 31, 2019. Only 2,500,000 shares may be sold back to Rezolute during calendar year 2020.

On January 30, 2019, Rezolute closed a preferred stock financing for gross proceeds of $25.0 million, which triggered the Qualified Financing event defined under the amended common stock purchase agreement resulting in consideration due to XOMA consisting of $5.5 million in cash. In addition, the Company received from Rezolute the reimbursable technology transfer expense of $0.3 million. The cash consideration and technology reimbursement were received in February 2019.

As of March 31, 2019, Rezolute completed all financing activities, as defined in the license agreement and common stock purchase agreement, and the Company is eligible to receive $8.5 million in future cash payments through September 2020 (in addition to any clinical, regulatory and annual net sales milestone payments and royalties). The Company concluded that the future cash payments are dependent on Rezolute's ability to raise additional capital through future financing activities. The Company applied the variable consideration constraint to the $8.5 million future cash payments and determined that it is probable that a significant revenue reversal will not occur in future periods for only $2.5 million of the total future cash payments. During the three months ended March 31, 2019, the Company recognized $8.0 million as revenue, which consisted of the $5.5 million consideration due upon the Qualified Financing event and $2.5 million of the future cash payments. As of March 31, 2019, and December 31, 2018, there were no contract assets or contract liabilities related to this arrangement. None of the costs to obtain or fulfill the contract were capitalized

NIAID

Prior to the sale of the Company's biodefense business discussed in Note 7, the Company performed services under a $64.8 million multiple-year contract funded with federal funds from NIAID (Contract No. HHSN272200800028C), for development of anti-botulinum antibody product candidates. The contract work was being performed on a cost plus fixed fee basis over a three-year period. The Company recognized revenue under the arrangement as the services were performed on a proportional performance basis. Consistent with the Company's other contracts with the U.S. government, invoices were provisional until finalized. The Company operated under provisional rates from 2010 through 2014, subject to adjustment based on actual rates upon agreement with the government. In 2014, upon completion of NIAID's review of hours and external expenses, XOMA agreed to exclude certain hours and external expenses resulting in a $0.4 million receivable and $0.8 million deferred revenue balances. As of December 31, 2017, the Company wrote off the $0.4 million receivable from NIAID as the likelihood of collection is remote. The Company classified $0.8 million as contract liabilities on the condensed consolidated balance sheets as of March 31, 2019 and December 31, 2018.

Sale of Future Revenue Streams

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

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

The Company recognized $0.1 million as revenue under units-of-revenue method under these arrangements during the three months ended March 31, 2019 and 2018. As of March 31, 2019, the current and non-current portion of the remaining unearned revenue recognized under units-of-revenue method was $0.6 million and $16.8 million, respectively. As of December 31, 2018, the Company classified $0.5 million and $17.0 million as current and non-current unearned revenue recognized under units-of-revenue method, respectively.

5. Royalty Purchase Agreements

Agenus Royalty Purchase Agreement

On September 20, 2018, the Company entered into a Royalty Purchase Agreement (the "Agenus Royalty Purchase Agreement") with Agenus, Inc., and certain affiliates (collectively, "Agenus"). Under the Agenus Royalty Purchase Agreement, the Company purchased from Agenus the right to receive 33% of the future royalties on six Incyte immuno-oncology assets, currently in development, due to Agenus from Incyte Europe Sarl ("Incyte") (net of certain royalties payable by Agenus to a third party) and 10% of all future developmental, regulatory and commercial milestones related to these assets. However, the Company did not have a right to the expected near-term milestone associated with the entry of INCAGN2390 (anti-TIM-3) into the clinical trials. The future royalties due to Agenus from Incyte are based on low-single to mid-teen digit percentage of applicable net sales. In addition, the Company purchased from Agenus the right to receive 33% of the future royalties on an undisclosed Merck immuno-oncology product currently in clinical development due to Agenus from Merck Sharp & Dohme Corp. ("Merck") and 10% of all future developmental, regulatory and commercial milestones related to this asset. The future royalties due to Agenus from Merck are based on low single digit percentage of applicable net sales. Pursuant to the Agenus Royalty Purchase Agreement, the Company's share in future potential development, regulatory and commercial milestones is up to $59.5 million. There is no limit on the amount of future royalties on sales that the Company may receive under the agreements.

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

As of March 31, 2019 and December 31, 2018, there were no changes to the previously recorded $15.0 million long-term royalty receivables in the condensed consolidated balance sheets. No payments are probable to be received under this agreement in the near term. Under the cost recovery method, the Company does not expect to recognize any income related to milestones and royalties received until the investment of $15.0 million has been fully collected. No impairment was recorded as of March 31, 2019 and December 31, 2018.

Bioasis Royalty Purchase Agreement

On February 25, 2019, the Company entered into a Royalty Purchase Agreement (the "Bioasis Royalty Purchase Agreement") with Bioasis Technologies Inc. and certain affiliates (collectively "Bioasis"). Under the agreement, the Company purchased potential future milestone and royalty rights from Bioasis for product candidates that are being developed pursuant to a License Agreement between Bioasis and Prothena Biosciences Limited. In addition, the Company was granted options to purchase a 1% royalty right on the next two license agreements entered into between Bioasis and third-party licensees subject to certain payments and conditions as well as a right of first negotiation on subsequent Bioasis license agreements with third parties. Upon exercise of the option related to the second license agreement executed by Bioasis, the Company may be obligated to pay up to $0.3 million per licensed product. Upon exercise of the option related to the third license agreement executed by Bioasis, the Company may be obligated to pay up to $0.4 million per licensed product.

Under the terms of the Bioasis Royalty Purchase Agreement, the Company paid Bioasis $0.3 million and will make contingent future cash payments of up to $0.2 million to Bioasis as the licensed product candidates reach certain development milestones.

At the inception of the agreement, the Company recorded $0.4 million as long-term royalty receivables in its condensed consolidated balance sheet, including the estimated fair value of the contingent consideration of $0.1 million. Future changes in the estimated fair value of the contingent consideration will be recognized in other income (expense), net. As of March 31, 2019, there was no change in the fair value of the contingent consideration from its initial value.

Under the cost recovery method, the Company does not expect to recognize any income related to milestones and royalties received until the investment has been fully collected. No impairment was recorded as of March 31, 2019.

6. Fair Value Measurements

The Company records its financial assets and liabilities at fair value. The carrying amounts of certain of the Company's financial instruments, including cash, trade receivables 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 identical assets or liabilities, such as quoted prices in active markets for similar assets or liabilities, quoted prices in markets that are not active or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

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 March 31, 2019 Using			
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Assets:				
Long-term equity securities	$ —	$ —	$ 1,107	$ 1,107
Liabilities:				
Contingent consideration	$ —	$ —	$ 75	$ 75

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

During the three-month period ended March 31, 2019, there were no transfers between Level 1, Level 2, or Level 3 assets reported at fair value on a recurring basis.

Long-Term Equity Securities

The following table provides a summary of changes in the estimated fair value of the Company's Level 3 financial assets for the three months ended March 31, 2019 (in thousands):

Balance at December 31, 2018	$ 392
Change in fair value	715
Balance at March 31, 2019	$ 1,107

The equity securities consisted of an investment in Rezolute's common stock and are classified as long-term assets on the condensed consolidated balance sheet as of March 31, 2019. The long-term equity securities are revalued each reporting period with changes in fair value recorded in other income (expense), net line item of the condensed consolidated statement of operations and comprehensive income (loss).

As of March 31, 2019, the Company and its valuation specialist valued the equity securities using the closing price for Rezolute's common stock traded on the over-the-counter exchange and adjusted for an illiquidity discount. The inputs used to calculate the illiquidity discount are based on observable and unobservable estimates and judgments and therefore is classified as a Level 3 fair value measurement. As the Company has the right and option to sell up to 5,000,000 shares of Rezolute's common stock back to Rezolute after December 31, 2019 (see Note 4), the fair value of the equity securities was determined by dividing the total shares of Rezolute's common stock held by the Company into two tranches based on the estimated time to a potential liquidity event.

The estimated fair value of the equity securities was calculated based on the following assumptions as of March 31, 2019:

Closing common stock price on the OTC exchange	$	0.20
Tranche 1:		
Discount for lack of marketability		24 %
Estimated time to liquidity of shares		1 year
Tranche 2:		
Discount for lack of marketability		35 %
Estimated time to liquidity of shares		2 years

As of December 31, 2018, the Company and its valuation specialist used a probability-weighted expected return model to measure the fair value of the securities. This valuation methodology is based on unobservable estimates and judgements, and therefore is classified as a Level 3 fair value measurement. Scenarios and probabilities were based on Company management estimates and were incorporated into the determination of the fair value of the equity securities.

The estimated fair value of the equity securities was calculated based on the following assumptions as of December 31, 2018:

Discount for lack of marketability	35 %
Estimated time to liquidity of shares	1.45 years
Scenario probabilities	
Liquidation	20 %
Near-term sale	5 %
Near-term financing	75 %

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

Contingent Consideration

The estimated fair value of the contingent consideration liability at the inception of the Bioasis Royalty Purchase Agreement represents the future consideration that is contingent upon the achievement of specified development milestones for a product candidate. The fair value measurement is based on significant Level 3 inputs such as anticipated timelines and probability of achieving development milestones of each licensed product candidate. Changes in the fair value of the liability for contingent consideration will be recorded in other income (expense), net line item of the condensed consolidated statements of operations and comprehensive income (loss) until settlement. As of March 31, 2019, there were no changes in the estimated fair value of the contingent consideration from its initial value.

Debt

The estimated fair value of the Company's outstanding debt is estimated using the net present value of the payments, discounted at an interest rate that is consistent with market interest rates, which is a Level 2 input. The carrying amount and the estimated fair value of the Company's outstanding long-term debt at March 31, 2019, and December 31, 2018, are as follows (in thousands):

	March 31, 2019		December 31, 2018	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
Novartis note	$ 15,193	$ 15,130	$ 15,193	$ 14,825
SVB Loan	7,390	7,388	7,286	7,281
Total	$ 22,583	$ 22,518	$ 22,479	$ 22,106

7. Dispositions

On November 4, 2015, XOMA and Ology Bioservices, Inc. ("Ology Bioservices") entered into an asset purchase agreement under which Ology Bioservices agreed to acquire XOMA's biodefense business and related assets (including certain contracts with the U.S. government), and to assume certain liabilities of XOMA. As part of the transaction, the parties entered into an intellectual property license agreement (the "Ology Bioservices License Agreement"), under which XOMA agreed to license to Ology Bioservices certain intellectual property rights related to the purchased assets. In addition, the Company is eligible to receive 15% royalties on net sales of any future Ology Bioservices products covered by or involving the related patents or know-how.

In February 2017, the Company executed an Amendment and Restatement to both the asset purchase agreement and Ology Bioservices License Agreement. Based on the payment terms pursuant to the amended Ology Bioservices License Agreement, the Company was entitled to receive cash consideration in aggregate of $4.6 million, all of which was received as of December 31, 2018. No further payments remain under the agreement, but the Company is still eligible to receive royalties in the future.

The Company received $1.0 million during the three months ended March 31, 2018, which was recognized as other income, net in the condensed consolidated statement of operations and comprehensive loss.

8. Restructuring Charges

On December 19, 2016, the Board of Directors approved a restructuring of its business based on its decision to focus the Company's efforts on clinical development, with an initial focus on the X358 clinical programs In early 2017, the Company further revised its strategy to prioritize out-licensing activities and further curtail research and development spending. The restructuring included a reduction in force in which the Company terminated a total of 62 employees. Charges related to these initiatives were complete by the end of fiscal year 2017.

Prior to 2017, the Company's operations were located in two buildings in Berkeley, California. Due to the restructuring activity and reduction in headcount, the Company determined that it did not need the building space in Berkeley, California and consolidated all of its personnel in a new office facility in Emeryville, California. During the year ended December 31, 2018, the Company completely vacated both of its leased facilities in Berkeley, California and subleased the space to subtenants. In connection with vacating this space, the Company recorded a discounted lease-related restructuring liability, which was calculated as the present value of the estimated future facility costs for which the Company would obtain no future economic benefit over the term of the lease, net of estimated future sublease income, and adjusted for the remaining balance of deferred rent. In addition, in connection with the sublease agreement executed in April 2018, the Company recognized a loss on the sublease of $0.6 million, which was recorded in the restructuring charges line item of the condensed consolidated statement of operations and comprehensive loss during the three months ended June 30, 2018 (see Note 11).

As of December 31, 2018, the Company classified the current portion of the combined lease-related liabilities of $1.4 million within accrued and other liabilities and the non-current portion of $0.3 million within other liabilities non-current in its consolidated balance sheet. Upon adoption of ASC 842, the Company consolidated all its lease-related liabilities in the condensed consolidated balance sheet as of January 1, 2019 and reported as operating lease liabilities (see Note 2).

During the three months ended March 31, 2019 and 2018, no lease-related restructuring charges were recognized in the condensed consolidated statements of operations and comprehensive income (loss).

9. Long-Term Debt

Silicon Valley Bank Loan Agreement

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

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

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

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

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

On March 4, 2019, the Loan Agreement was amended to extend the Draw Period from March 31, 2019 to March 31, 2020. In connection with the amendment, the Company issued a second warrant to SVB which is exercisable in whole or in part for up to an aggregate of 4,845 shares of common stock with an exercise price of $14.71 per share. The second warrant may be exercised on a cashless basis and is exercisable within 10 years from the date of issuance or upon the consummation of certain acquisitions of the Company. The fair value of the second warrant issued to SVB was determined using the Black-Scholes Model and was estimated to be $0.1 million. As of March 31, 2019, both warrants are outstanding.

In September 2018, the first Term Loan Advance was drawn, and the Company borrowed advances of $7.5 million under the Loan Agreement in connection with the Agenus Royalty Purchase Agreement (see Note 5). The Company recorded a discount of $0.3 million against the debt, which is amortized to interest expense over the term of the Term Loan Advance using the effective interest method. The Company recorded $0.1 million of non-cash interest expense resulting from the amortization of the discount and accretion of the final payment for the three months ended March 31, 2019. As of March 31, 2019, the carrying value of the debt under the Loan Agreement was $7.4 million.

Novartis Note

In May 2005, the Company executed a secured note agreement (the "Note Agreement") with Novartis, which was due and payable in full in June 2015. Under the Note Agreement, the Company borrowed semi-annually to fund up to 75% of the Company's research and development and commercialization costs under its collaboration arrangement with Novartis, not to exceed $50.0 million in aggregate principal amount. Interest on the principal amount of the loan accrued at six-month LIBOR plus 2%, which was equal to 4.90% at March 31, 2019 is payable semi-annually in June and December of each year. Additionally, the interest rate resets in June and December of each year. At the Company's election, the semi-annual interest payments could be added to the outstanding principal amount, in lieu of a cash payment, as long as the aggregate principal amount did not exceed $50.0 million. The Company made this election for all interest payments. Loans under the Note Agreement were secured by the Company's interest in its collaboration with Novartis, including any payments owed to it thereunder.

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

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

As of March 31, 2019 and December 31, 2018, the outstanding principal balance under the Secured Note Amendment was $15.2 million and was included in long-term debt in the accompanying condensed consolidated balance sheets.

Interest Expense

Amortization of debt issuance costs and discounts are included in interest expense. Interest expense in the condensed consolidated statements of operations and comprehensive income (loss) relates to the following debt instruments (in thousands):

	Three Months Ended March 31,	
	2019	2018
Novartis note	$ 186	$ 139
SVB loan	242	—
Other	1	31
Total interest expense	$ 429	$ 170

10. Common Stock Warrants

As of March 31, 2019 and December 31, 2018, the following common stock warrants were outstanding:

Issuance Date	Expiration Date	Balance Sheet Classification	Exercise Price per Share	March 31, 2019	December 31, 2018
February 2015	February 2020	Stockholders' equity	$ 66.20	9,063	9,063
February 2016	February 2021	Stockholders' equity	$ 15.40	8,249	8,249
May 2018	May 2028	Stockholders' equity	$ 23.69	6,332	6,332
March 2019	March 2029	Stockholders' equity	$ 14.71	4,845	—
				28,489	23,644

11. Commitments and Contingencies

Collaborative Agreements, Royalties and Milestone Payments

The Company has committed to make potential future milestone payments to third parties as part of licensing and development programs. Payments under these agreements become due and payable only upon the achievement of certain developmental, regulatory and commercial milestones by the Company's licensees. Because it is uncertain if and when these milestones will be achieved, such contingencies, aggregating up to $7.6 million have not been recorded on the accompanying condensed 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.

Contingent Consideration

Pursuant to the Bioasis Royalty Purchase Agreement, the Company has committed to pay contingent consideration of up to $0.2 million to Bioasis as the licensed product candidates reach certain development milestones. The Company recorded the contingent consideration at $0.1 million, which represents the estimated fair value of potential future payments at the inception of the agreement. The contingent consideration will be remeasured at fair value at each reporting period, with changes in fair value recorded in other income (expense), net.

Lease Agreements

The Company leases two facilities in Berkeley, California under operating leases that have a remaining lease term ranging from two to four years. The Company also leases one facility in Emeryville, California under an operating lease that expires in February 2023. The Emeryville lease contains both an option to early terminate the lease and an option to extend the lease for an additional term, however, the Company is not reasonably assured to exercise either option. During 2018, the Company completely vacated both of its leased facilities in Berkeley, California and consolidated all of its personnel in the office facility in Emeryville, California. The Company subleased the leased space in the vacated buildings to four subtenants as of March 31, 2019. As of March 31, 2019, the Company recognized right-of-use assets and lease liabilities for all three operating leases.

The maturity of the Company's operating lease liabilities as of March 31, 2019 is as follows (in thousands):

Undiscounted lease payments	Operating Leases
2019 (excluding the three months ended March 31, 2019)	$ 1,980
2020	2,736
2021	2,268
2022	1,943
2023	620
Total undiscounted lease payments	9,547
Present value adjustment	(899)
Total net lease liabilities	$ 8,648

The Company's future undiscounted lease payments under operating leases (as defined by prior guidance) as of December 31, 2018 are as follow (in thousands):

Year Ending December 31,	Rent Payments
2019	$ 4,381
2020	3,923
2021	3,156
2022	2,611
2023	854
Thereafter	—
Total minimum lease payments	$ 14,925

Rent expense recognized for operating leases was $0.6 million for the three months ended March 31, 2019. Under the terms of the lease agreements, the Company is also responsible for certain variable lease payments that are not included in the measurement of the lease liability. Variable lease payments for operating leases were $0.6 million for the three months ended March 31, 2019, including non-lease components such as common area maintenance fees.

The following information represents supplemental disclosure for the statement of cash flows related to operating leases (in thousands):

	March 31, 2019
Cash paid for amounts included in the measurement of lease liabilities	
Operating cash flows from operating leases	$ 649

The following summarizes additional information related to operating leases (in thousands):

	March 31, 2019
Weighted-average remaining lease term	
Operating leases	3.66 years
Weighted-average discount rate	
Operating leases	5.51 %

Sublease Agreements

On November 21, 2017, the Company entered into a non-cancellable sublease agreement for a portion of one of its three leased facilities. The term of the sublease agreement commenced on December 26, 2017. Under the term of the sublease agreement, the Company will receive $5.1 million in base lease payments plus reimbursement of certain operating expenses over the term of the sublease, which ends at the same time as the original lease in April 2023. Under the sublease agreement, the Company's future sublease income will be equal to the amount required to be paid to the Company's landlord. In addition, the sublease provides for a tenant improvement allowance of $0.8 million to the subtenant, which was funded by the Company in January 2018. Upon execution of the sublease agreement, the Company recognized a loss on the sublease equal to the tenant improvement allowance. Under the sublease agreement, the sub-lessee executed a standby letter of credit naming the Company as the beneficiary amounting to $1.0 million as security under the sublease in the event of uncured default by the sub-lessee. As of March 31, 2019, the Company has not drawn any funds from the letter of credit as there was no default by the sub-lessee. During the three months ended March 31, 2019 and 2018, the Company recognized $0.4 million of sublease income under this agreement.

On April 14, 2018, the Company entered into a non-cancellable sublease agreement for a portion of one of its three leased facilities. The term of the sublease agreement commenced on May 1, 2018. Under the term of the sublease agreement, the Company will receive $1.1 million in base lease payments plus reimbursement of certain operating expenses over the term of the sublease, which ends at the same time as the original lease in April 2023. Under the sublease agreement, the Company's future sublease income is less than the amount required to be paid to the Company's landlord. In addition, the sublease provides for a tenant improvement allowance of $65,000 to the subtenant, and payment of broker commissions of $89,000. Upon execution of the sublease agreement, the Company recognized a loss on the sublease of $0.6 million, which was recorded in the restructuring charges line item of the condensed consolidated statement of operations and comprehensive loss during the three months ended June 30, 2018 (see Note 8). During the three months ended March 31, 2019, the Company recognized $0.1 million of sublease income under this agreement.

In October 2018, the Company entered into a non-cancellable sublease agreement for a portion of one of its three leased facilities. The term of the sublease agreement commenced on October 24, 2018. Under the term of the sublease agreement, the Company will receive $1.7 million in base lease payments over the term of the sublease, which ends at the same time as the original lease in May 2021. In addition, the sublease provides for payment of broker commissions of $137,000. During the three months ended March 31, 2019, the Company recognized $0.2 million of sublease income under this agreement.

In January 2019, the Company entered into a non-cancellable sublease agreement for a portion of one of its three leased facilities. The term of the sublease agreement commenced on January 18, 2019. Under the term of the sublease agreement, the Company will receive $1.7 million in base lease payments over the term of the sublease, which ends at the same time as the original lease in April 2023. In addition, the sublease provides for a tenant improvement allowance of $91,000 to the subtenant, and payment of broker commissions of $53,000. During the three months ended March 31, 2019, the Company recognized $0.1 million of sublease income under this agreement.

The Company's future cash flows to be received from subleases as of March 31, 2019 and December 31, 2018 is as follows (in thousands):

Sublease income	March 31, 2019
2019 (excluding the three months ended March 31, 2019)	$ 1,668
2020	2,280
2021	1,906
2022	1,644
2023	556
Total minimum lease payments	$ 8,054

Sublease income	December 31, 2018(1)
2019	$ 2,249
2020	2,376
2021	2,006
2022	1,746
2023	592
Total minimum lease payments	$ 8,969

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

12. Stock-based Compensation

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.

Stock Options

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

The fair value of the stock options granted during the three months ended March 31, 2019 and 2018, was estimated based on the following weighted average assumptions:

	Three Months Ended March 31,	
	2019	2018
Dividend yield	0 %	0 %
Expected volatility	103 %	101 %
Risk-free interest rate	2.55 %	2.72 %
Expected term	5.60 years	5.60 years

Stock option activity for the three months ended March 31, 2019, was as follows:

	Number of shares	Weighted Average Exercise Price Per Share	Weighted Average Contractual Term (in years)	Aggregate Intrinsic Value (in thousands)
Outstanding at beginning of year	1,624,746	$ 23.09		
Granted	349,979	14.23		
Exercised	(23,861)	4.83		
Forfeited, expired or cancelled	(32,914)	64.36		
Outstanding at end of period	1,917,950	$ 20.99	7.9	$ 7,624
Exercisable at end of period	1,134,601	$ 24.42	7.1	$ 6,046

The aggregate intrinsic value of stock options exercised during the three months ended March 31, 2019 and 2018 was $0.2 million and $1,000, respectively.

The weighted-average grant-date fair value per share of the options granted during the three months ended March 31, 2019 and 2018 was $11.27 and $18.69, respectively.

As of March 31, 2019, $7.1 million of total unrecognized compensation expense related to stock options is expected to be recognized over a weighted average period of 2.1 years.

Performance-Based Stock Options

Stock-based compensation expense associated with the corporate performance-based stock options is recognized if the performance condition is considered probable of achievement using management's best estimates. As of March 31, 2019, the Company had 41,250 shares remaining related to outstanding performance-based stock options with a grant date fair value of $0.2 million that will vest based solely on the achievement of fiscal year 2019 corporate goals as set by the Compensation Committee of the Company's Board of Directors. For the three months ended March 31, 2019, the Company determined that all remaining options were probable of achievement in fiscal year 2019 and therefore the related expense of $56,000 was recognized during the quarter. As of March 31, 2019, there was $0.2 million unrecognized compensation costs related to these outstanding performance-based stock options.

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

Restricted Stock Units

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

For the three months ended March 31, 2019, all remaining RSUs were forfeited and there was no unvested balance as of March 31, 2019.

Stock-based Compensation Expense

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

	Three Months Ended March 31,	
	2019	2018
Research and development	$ 49	$ 104
General and administrative	1,679	1,312
Total stock-based compensation expense	$ 1,728	$ 1,416

13. Capital Stock

Convertible Preferred Stock

Rights Offering 2018

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

All Series Y convertible preferred shares were issued to Biotechnology Value Fund, L.P. ("BVF"). One of the Company's Directors, Matthew Perry, is the President of BVF. Each share of Series Y convertible preferred stock has a stated value of $13,000 per share and is convertible into 1,000 shares of registered common stock based on a conversion price of $13.00 per share of common stock. The total number of shares of common stock issued upon conversion of all issued Series Y convertible preferred stock will be 1,252,772 shares. Each share is convertible at the option of the holder at any time, provided that the holder will be prohibited from converting into common stock if, as a result of such conversion, the holder, together with its affiliates, would beneficially own a number of shares above a conversion blocker, which is initially set at 19.99% of the total common stock then issued and outstanding immediately following the conversion of such shares. As of March 31, 2019, BVF owned approximately 19.99% of the Company's total outstanding shares, and if all of the Series X and Series Y convertible preferred shares were converted, BVF would own 53.4% of the Company's total outstanding common shares. As of March 31, 2019, none of the preferred stock has been converted into shares of the Company's common stock.

Biotechnology Value Fund Financing 2017

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

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

Preferred Stock

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

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

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

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

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

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

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

2018 ATM Agreement

On December 18, 2018, the Company entered into an At The Market Issuance Sales Agreement (the "2018 ATM Agreement") with H.C. Wainwright & Co., LLC ("HCW"), under which the Company may offer and sell from time to time at its sole discretion shares of its common stock through HCW as its sales agent, in an aggregate amount not to exceed $30.0 million. HCW may sell the shares by any method permitted by law deemed to be an "at the market" offering as defined in Rule 415 of the Securities Act, and will use its commercially reasonable efforts consistent with its normal trading and sales practices to sell the shares up to the amount specified. The Company will pay HCW a commission of 3% of the gross proceeds of any shares of common stock sold under the 2018 ATM Agreement. No shares were sold under the 2018 ATM Agreement during the three months ended March 31, 2019.

14. Income Taxes

No provision was made for federal income tax since the Company is forecasting a loss for fiscal year 2019. As the Company continues to maintain a full valuation allowance against its U.S. net deferred tax assets, no income tax benefit is being recorded for any U.S. losses.

15. Subsequent Events

Royalty Purchase Agreement with Aronora, Inc.

On April 7, 2019, the Company entered into a Royalty Purchase Agreement (the "Aronora Royalty Purchase Agreement") with Aronora, Inc., a private research and development company headquartered in Portland, Oregon ("Aronora"). Pursuant to the terms of the Aronora Royalty Purchase Agreement, the Company, subject to certain customary closing conditions, will purchase from Aronora the rights to potential royalty payments and a portion of the potential milestone payments associated with five hematology drug products in development: three anti-thrombotic candidates subject to Aronora's collaboration with Bayer Pharma AG ("Bayer"), one of which is subject to an option by Bayer (the "Bayer Licensed Products") and two additional early stage hematology candidates, including one in early stage clinical trials (the "non-Bayer Licensed Products," together with the Bayer Licensed Products, the "Products").

Under the terms of the Aronora Royalty Purchase Agreement, the Company will make an initial $6.0 million payment to Aronora at the closing of the transaction (the "Closing Amount") subject to the fulfillment of certain pre-closing conditions contained in the Aronora Royalty Purchase Agreement. The transaction is expected to close no later than the third quarter of 2019, and the Aronora Royalty Purchase Agreement will terminate if all pre-closing conditions are not fulfilled within ninety days and the parties do not extend the Aronora Royalty Purchase Agreement prior thereto. The Company is required to make an additional $1.0 million payment (up to a total of $3.0 million) for each of the three Bayer Licensed Products that are active as of September 1, 2019.

The Company will receive, on average, low single-digit royalties on future sales of the Bayer Licensed Products (net of certain royalties payable to third parties) and 10% of all future developmental, regulatory and sales milestones related to the Bayer Licensed Products payable after the closing of the transaction excluding the payment of any milestone associated with Bayer exercising its option on one of the Bayer Licensed Products. In addition, the Company will purchase from Aronora the right to receive low single- digit royalties on potential sales of the non-Bayer Licensed Products and 10% of all future payments, including upfront payments, option payments and developmental, regulatory and sales milestone payments on potential future sales of the non-Bayer Licensed Products. The above future payment percentages will be reduced to 5% upon the Company's receipt of two times the total cumulative amount of consideration paid by the Company to Aronora.

Pursuant to the Aronora Royalty Purchase Agreement, if the Company receives over $250 million in cumulative royalties on net sales per Product, the Company will be required to pay associated tiered milestones payments to Aronora in an aggregate amount of up to $85 million per Product.

The Aronora Royalty Purchase Agreement contains customary representations, warranties, covenants and indemnities. The Aronora Royalty Purchase Agreement will terminate six months following receipt by the Company of all royalty payments to which it is entitled thereunder. Aronora can terminate the Aronora Royalty Purchase Agreement if the Company fails to make payments thereunder in a timely fashion (after the expiration of any applicable cure period).

Sonnet BioTherapeutics, Inc.

On May 6, 2019, the Company executed an amendment to a license agreement with Sonnet BioTherapeutics, Inc. that entitles XOMA to potential future milestones and royalties on certain development stage assets.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Forward Looking Statements

This Quarterly Report on Form 10-Q contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and the Private Securities Litigation Reform Act of 1995, which are subject to the "safe harbor" created by those sections. Forward-looking statements are based on our management's beliefs and assumptions and on information currently available to them. In some cases you can identify forward-looking statements by words such as "may," "will," "should," "could," "would," "expects," "plans," "anticipates," "believes," "estimates," "projects," "predicts," "potential," "intend" and similar expressions intended to identify forward-looking statements. Examples of these statements include, but are not limited to, statements regarding: our future operating expenses, our future losses, the success of our strategy as a royalty aggregator, extent to which our issued and pending patents may protect our products and technology, the potential of our existing product candidates to lead to the development of commercial products, our ability to receive potential milestone or royalty payments under license and collaboration agreements and the timing of receipt of those payments. These statements are based on assumptions that may not prove accurate. Actual results could differ materially from those anticipated due to certain risks inherent in the biotechnology industry and for our licensees engaged in the development of new products in a regulated market. Among other things: our product candidates subject to our out-license agreements are still being developed, and our licensees' may require substantial funds to continue development which may not be available; we may not be successful in entering into out-license agreements for our product candidates; if our therapeutic product candidates do not receive regulatory approval, our third-party licensees will not be able to manufacture and market them; products or technologies of other companies may render some or all of our product candidates noncompetitive or obsolete; we do not know whether there will be, or will continue to be, a viable market for the products in which we have an ownership or royalty interest; even once approved, a product may be subject to additional testing or significant marketing restrictions, its approval may be withdrawn or it may be voluntarily taken off the market; we and our licensees are subject to various state and federal healthcare related laws and regulations that may impact the commercialization of our product candidates and could subject us to significant fines and penalties; and certain of our technologies are in-licensed from third parties, so our capabilities using them are restricted and subject to additional risks. These and other risks, including those related to current economic and financial market conditions, are contained principally in Part II, Item 1A of this Quarterly Report on Form 10-Q and our other filings with the SEC. You should not place undue reliance on these forward-looking statements, which apply only as of the date of this Quarterly Report on Form 10-Q. You should read this Quarterly Report on Form 10-Q completely and with the understanding that our actual future results may be materially different from those we expect. Except as required by law, we assume no obligation to update these forward-looking statements, whether as a result of new information, future events or otherwise.

The following discussion and analysis should be read in conjunction with the unaudited financial statements and notes thereto included in Part I, Item 1 of this Quarterly Report on Form 10-Q and with the audited consolidated financial statements and related notes thereto included as part of our Annual Report on Form 10-K for the year ended December 31, 2018.

Overview

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

Recent Business Developments

Rezolute

In December 2017, we entered into a license and common stock purchase agreement with Rezolute, which was amended on March 30, 2018 and further amended on January 7, 2019. The license agreement was amended to eliminate the requirement that equity securities be issued to us upon the closing of the Qualified Financing (as defined in the license agreement) and to replace it with a requirement that Rezolute: (1) make five cash payments to us totaling $8.5 million following the closing of a Qualified Financing on or before specified staggered future dates through September 2020 (the "Future Cash Payments"); and (2) provide for early payment of the Future Cash Payments (only until $8.5 million is reached) by making cash payments to us equal to 15% of the net proceeds of each future financing following the closing of the Qualified Financing, with such payments to be credited against any remaining

unpaid Future Cash Payments in reverse order of their future payment date. The common stock purchase agreement was amended to remove certain provisions related to the issuance of equity to us in accordance with the new provisions regarding the Future Cash Payments in the license agreement.

On January 30, 2019, Rezolute closed a preferred stock financing activity for gross proceeds of $25.0 million, which triggered the Qualified Financing defined under the amended common stock purchase agreement between us and Rezolute. As such, pursuant to the amended terms of the agreement with Rezolute, we received cash of $5.5 million. In addition, in February 2019, we received the reimbursable technology transfer expenses of $0.3 million from Rezolute.

Bioasis

On February 25, 2019, we entered into a Royalty Purchase Agreement with Bioasis Technologies Inc. (the "Bioasis Royalty Agreement") and certain affiliates (collectively "Bioasis"). Under the agreement, we purchased potential future milestone, royalty and option fee payment rights from Bioasis for product candidates that are being developed pursuant to a License Agreement between Bioasis and Prothena Biosciences Limited. Under the terms of the agreement, we paid Bioasis an upfront cash payment of $0.3 million and will be required to make contingent future cash payments of up to $0.2 million to Bioasis if and when the licensed product candidates reach certain development milestones. In addition, we were granted an option to purchase a 1% royalty right on the next two license agreements entered into between Bioasis and third-party licensees subject to certain payments and conditions as well as a right of first negotiation on subsequent Bioasis license agreements with third parties.

Silicon Valley Bank Loan Agreement

In May 2018, we executed a Loan and Security Agreement (the "Loan Agreement") with SVB. Under the Loan Agreement, upon our request, SVB may make advances available to us up to $20.0 million. As of March 31, 2019, we borrowed $7.5 million under the Loan Agreement. In March 2019, we and SVB amended the Loan Agreement to extend the Draw Period from March 31, 2019 to March 31, 2020. In connection with the amendment, we issued a second warrant to SVB which is exercisable in whole or in part for up to an aggregate of 4,845 shares of common stock with an exercise price of $14.71 per share. The warrant may be exercised on a cashless basis and is exercisable within 10 years from the date of issuance or upon the consummation of certain acquisitions of XOMA.

Certain Factors Important to Understanding Our Financial Condition and Results of Operations

We have historically specialized in the discovery and development of innovative antibody-based therapeutics. In March 2017, we transformed our business model to become a royalty aggregator where we focus on expanding our portfolio of fully-funded programs by out-licensing our internally developed product candidates and acquiring potential milestone and royalty revenue streams on additional drug development product candidates. We combined our royalty aggregator model with a significantly reduced corporate cost structure to further build value for our shareholders. Our long-term prospects depend upon the ability of our partners to successfully commercialize new therapeutics. Our financial performance is driven by many factors and is subject to the risks set forth in Part II, Item 1A - Risk Factors.

Critical Accounting Policies

Critical accounting policies are those that require significant judgment and/or estimates by management at the time that the financial statements are prepared such that materially different results might have been reported if other assumptions had been made. We consider certain accounting policies including, but not limited to, those related to revenue recognition, and stock-based compensation to be critical policies. Except for the adoption of the new lease accounting standard on January 1, 2019, as described below and in Note 2 to the Condensed Consolidated Financial Statements, there have been no significant changes in our critical accounting policies during the three months ended March 31, 2019, as compared with those previously disclosed in our Annual Report on Form 10-K for the year ended December 31, 2018, filed with the SEC on March 7, 2019.

Leases

On January 1, 2019, we adopted ASC Topic 842, Leases ("ASC 842") using the optional transition method and applied the standard only to leases that existed at that date. Under the optional transition method, we do not need to restate the comparative periods in transition and will continue to present financial information and disclosures for periods before January 1, 2019 in accordance with ASC Topic 840. We have elected the package of practical expedients allowed under ASC Topic 842, which permits us to account for our existing operating leases as operating leases under the new guidance, without reassessing our prior conclusions about lease identification, lease classification and initial direct cost. As a result of the adoption of the new lease accounting guidance, we recognized on January 1, 2019 operating lease right-of-use assets of approximately $7.4 million and operating lease liabilities of approximately $9.2 million.

We determined the initial classification and measurement of our right-of-use assets and lease liabilities at the lease commencement date and thereafter if modified. The lease term includes any renewal options and termination options that we are reasonably assured to exercise. The present value of lease payments is determined by using the interest rate implicit in the lease, if that rate is readily determinable; otherwise, we use our incremental borrowing rate. The incremental borrowing rate is determined by using the rate of interest that we would pay to borrow on a collateralized basis an amount equal to the lease payments for a similar term and in a similar economic environment.

Rent expense for operating leases is recognized on a straight-line basis, unless the right-of-use asset has been impaired, over the reasonably assured lease term based on the total lease payments and is included in operating expenses in the condensed consolidated statements of operations and comprehensive income.

For operating leases that reflect impairment, we will recognize the amortization of the right-of-use asset on a straight-lined basis over the remaining lease term with rent expense still included in operating expenses in the condensed consolidated statements of operations and comprehensive income.

For all leases, rent payments that are based on a fixed index or rate at the lease commencement date are included in the measurement of lease assets and lease liabilities at the lease commencement date.

We have elected the practical expedient to not separate lease and non-lease components. Our non-lease components are primarily related to property maintenance and insurance, which varies based on future outcomes, and thus is recognized in rent expense when incurred.

Results of Operations

Revenues

Total revenues for the three months ended March 31, 2019 and 2018, were as follows (in thousands):

	Three Months Ended March 31,		2018-2019
	2019	2018	Change
Revenue from contracts with customers	$ 8,026	$ 401	$ 7,625
Revenue recognized under units-of-revenue method	105	62	43
Total revenues	$ 8,131	$ 463	$ 7,668

Revenue from Contracts with Customers

Revenue from contracts with customers includes upfront fees, milestone payments and royalties related to the out-licensing of our product candidates and technologies. The increase for the three months ended March 31, 2019, as compared to the same period in 2018, was primarily due to $8.0 million of license fee revenue recognized under our license agreement with Rezolute in the first quarter of 2019.

Revenue recognized under units-of-revenue method

Revenues include the amortization of unearned revenue from the sale of royalty interests to HealthCare Royalty Partners II, L.P. in December 2016.

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

Research and Development Expenses

Research and development ("R&D") expenses primarily include salaries and related expenses for R&D personnel who evaluate the scientific characteristics of our potential acquisitions of future milestones and royalty streams. R&D expenses were $0.3 million for the three months ended March 31, 2019, compared with $0.4 million for the same period in 2018. The decrease of $0.1 million for the three months ended March 31, 2019 compared to the same period in 2018 was primarily due to a $0.1 million decrease in salaries and related expenses.

We expect our R&D spending during the remainder of 2019 to remain comparable to 2018 levels.

General and Administrative Expenses

General and administrative ("G&A") expenses include salaries and related personnel costs, facilities costs and professional fees. G&A expenses were $5.9 million for the three months ended March 31, 2019, compared with $5.2 million for the same period in 2018. The increase of $0.7 million for the three months ended March 31, 2019, as compared to the same period of 2018, was primarily due to increases of $0.4 million in stock-based compensation, $0.2 million in consulting services and $0.1 million in salaries and related expenses.

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

Other Income (Expense)

Interest Expense

Amortization of debt issuance costs and discounts are included in interest expense. Interest expense is shown below for the three months ended March 31, 2019 and 2018 (in thousands):

	Three Months Ended March 31,		2018-2019
	2019	2018	Change
Novartis note	$ 186	$ 139	$ 47
SVB loan	242	—	242
Other	1	31	(30)
Total interest expense	$ 429	$ 170	$ 259

The increase in interest expense compared with 2018 is primarily due to the outstanding SVB loan balance. On May 7, 2018, we executed a loan agreement with SVB and on September 21, 2018 we borrowed advances of $7.5 million. We expect our interest expense to increase for the remainder of 2019 related to the outstanding SVB loan balance and increased interest rates, and to increase further if we choose to access additional funds.

Other Income, Net

The following table shows the activity in other income, net for the three months ended March 31, 2019 and 2018 (in thousands):

	Three Months Ended March 31,		2018-2019
	2019	2018	Change
Other income, net			
Income under the agreement with Ology Bioservices	$ —	$ 1,000	$ (1,000)
Sublease income	753	355	398
Change in fair value of long-term equity securities	715	—	715
Other	258	146	112
Total other income, net	$ 1,726	$ 1,501	$ 225

During the three months ended March 31, 2019, we held long-term equity securities which consisted of shares of Rezolute's common stock. As of March 31, 2019, the fair value of the long-term equity securities increased and we recognized a gain of $0.7 million during the quarter. As of March 31, 2019, we were party to four sublease agreements, compared with only one sublease agreement for the same period in 2018. The income under the agreement with Ology Bioservices was due to payments we received from Ology Bioservices during the three months ended March 31, 2018 related to the disposition of our biodefense business in March 2016 and no further payments are due.

Provision for Income Taxes

No provision was made for federal income tax since we are forecasting a loss for fiscal year 2019. As we continue to maintain a full valuation allowance against our U.S. net deferred tax assets, no income tax benefit is being recorded for any U.S. losses.

Liquidity and Capital Resources

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

	March 31, 2019	December 31, 2018	Change
Cash	$ 48,436	$ 45,780	$ 2,656
Working capital	$ 44,310	$ 41,923	$ 2,387

	Three Months Ended March 31,		2018-2019
	2019	2018	Change
Net cash provided by (used in) operating activities	$ 3,157	$ (3,839)	$ 6,996
Net cash used in investing activities	(300)	—	(300)
Net cash (used in) provided by financing activities	(201)	2,316	(2,517)
Effect of exchange rate changes on cash	—	20	(20)
Net increase (decrease) in cash	$ 2,656	$ (1,503)	$ 4,159

Cash Provided by (Used in) Operating Activities

The change in net cash from operating activities for the three months ended March 31, 2019, as compared with the same period in 2018, was primarily due to the $5.5 million cash receipts under the license and common stock purchase agreement with Rezolute.

Cash Used in Investing Activities

Net cash used in investing activities for the three months ended March 31, 2019 was due to the purchase of milestone and royalty rights of $0.3 million in connection with the Bioasis Royalty Purchase Agreement executed in February 2019.

Cash (Used in) Provided by Financing Activities

Net cash used in financing activities for the three months ended March 31, 2019 of $0.2 million was primarily due to payment of issuance costs related to the rights offering executed in 2018 and At The Market Issuance Sales Agreement (the "2018 ATM Agreement"), offset by proceeds received from the exercise of stock options.

Net cash provided by financing activities for the three months ended March 31, 2018 of $2.3 million was primarily related to the sale of common stock for net proceeds of $2.3 million.

SVB Loan Agreement

On May 7, 2018 (the "Effective Date"), we executed the Loan Agreement with SVB. Under the Loan Agreement, upon our request, SVB may make advances (each, a "Term Loan Advance") available to us up to $20.0 million (the "Term Loan"). We may borrow advances under the Term Loan until the earlier of March 31, 2020 or an event of default (the "Draw Period"). In the event of a default related to our note agreement with Novartis Pharma AG ("Novartis"), SVB's obligation to make any credit extensions to us under the Loan Agreement will immediately terminate. As of March 31, 2019, we have borrowed advances of $7.5 million under the Loan Agreement. The interest rate is calculated at a rate equal to the greater of (i) 4.75%, and (ii) 0.25% plus the prime rate as reported from time to time in The Wall Street Journal.

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

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

In April 2019, we entered into a Royalty Purchase Agreement with Aronora, Inc. ("Aronora") to purchase certain rights to potential royalty payments and a portion of the potential milestone payments associated with Aronora's five hematology drug products in development. The transaction is expected to close no later than the third quarter of 2019. Upon closing of the transaction, we may draw additional funds under the Loan Agreement with SVB.

2018 ATM Agreement

On December 18, 2018, we entered into the 2018 ATM Agreement with H.C. Wainwright & Co., LLC ("HCW"), under which we may offer and sell from time to time at our sole discretion shares of our common stock through HCW as our sales agent, in an aggregate amount not to exceed $30.0 million. HCW may sell the shares by any method permitted by law deemed to be an "at the market" offering as defined in Rule 415 of the Securities Act and will use its commercially reasonable efforts consistent with its normal trading and sales practices to sell the shares up to the amount specified. We will pay HCW a commission of 3% of the gross proceeds of any shares of common stock sold under the 2018 ATM Agreement. No shares were sold under the 2018 ATM Agreement during the three months ended March 31, 2019.

* * *

We have incurred significant operating losses since our inception and have an accumulated deficit of $1.2 billion as of March 31, 2019. As of March 31, 2019, we had $48.4 million in cash, which we anticipate will enable us to maintain our operations for a period of at least 12 months following the filing date of this report.

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

Changes in Contractual Obligations

Our future contractual obligations were reported in our Annual Report on Form 10-K for the year ended December 31, 2018, as filed with the SEC. Except as noted below, there have been no material changes from the contractual obligations previously disclosed in our Annual Report on Form 10-K for the year ended December 31, 2018.

Contingent Consideration

Pursuant to the Bioasis Royalty Purchase Agreement, we have committed to pay a contingent consideration of up to $0.2 million to Bioasis as the licensed product candidates reach certain development milestones. We recorded the contingent consideration at $0.1 million, which represents the estimated fair value of potential future payments at the inception of the agreement. The contingent consideration will be remeasured at fair value at each reporting period, with changes in the fair value recorded in other income (expense), net.

Off-balance Sheet Arrangements

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

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

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

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Controls and Procedures

We have established disclosure controls and procedures, as defined in Rule 13a-15(e) of the Exchange Act. Our Chief Executive Officer and our Chief Financial Officer have concluded, based on the evaluation of the effectiveness of our disclosure controls and procedures by our management, with the participation of our Chief Executive Officer and our Chief Financial Officer, as of the end of the period covered by this report, that our disclosure controls and procedures were effective at the reasonable assurance level.

Changes in Internal Control

There have been no changes in our internal controls over financial reporting as defined in Rule 13a-15(f) under the Exchange Act during our most recent fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal controls over financial reporting.

PART II – OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

None.

ITEM 1A. RISK FACTORS

This Quarterly Report on Form 10-Q contains forward-looking information based on our current expectations. Because our actual results may differ materially from any forward-looking statements made by or on behalf of us, this section includes a discussion of important factors that could affect our actual future results, including our revenues, expenses, operating results, cash flows, net loss and loss per share. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also impair our business operations. You should carefully consider these risk factors, together with all of the other information included in this Quarterly Report on Form 10-Q as well as our other publicly available filings with the U.S. Securities and Exchange Commission, or SEC.

Risks Related to our Royalty Aggregator Strategy

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

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

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

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

As part of our royalty aggregator strategy, we will likely purchase future milestone and royalty streams associated with drug products which are in clinical development and have not yet been commercialized. To the extent that any such drug products are not successfully developed and subsequently commercialized, the value of our acquired potential milestone and royalty streams will be negatively affected. The ultimate success of our royalty aggregator strategy will depend on our ability to properly identify and acquire high quality products and the ability of the applicable counterparty to innovate, develop and commercialize their products, in increasingly competitive and highly regulated markets. Their inability to do so would negatively affect our ability to receive royalty payments. In addition, we are dependent, to a large extent, on third parties to enforce certain rights for our benefit, such as protection

of a patent estate, adequate reporting and other protections, and their failure to do so would negatively impact our financial condition and results of operation.

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

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

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

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

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

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

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

The rules and interpretations of the SEC and the courts, relating to the definition of "investment company" are very complex. While we currently intend to conduct our operations so that we will not be an investment company under applicable SEC interpretations, we can provide no assurance that the SEC would not take the position that the Company would be required to register under the Investment Company Act of 1940 (the "'40 Act") and comply with the '40 Act's registration and reporting requirements, capital structure requirements, affiliate transaction restrictions, conflict of interest rules, requirements for disinterested directors, and other substantive provisions. We monitor our assets and income for compliance under the '40 Act and seek to conduct our business activities to ensure that we do not fall within its definitions of "investment company" or qualify under one of the exemptions or exclusions provided by the '40 Act. If we were to become an "investment company" and be subject to the restrictions of the '40 Act, those restrictions would likely require changes in the way we do business and add significant administrative burdens to our operations. To ensure that we do not fall within the '40 Act, we may need to take various actions which we might otherwise not pursue. These actions may include restructuring the Company and/or modifying our mixture of assets and income.

Risks Related to our Financial Results and Capital Requirements

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

With the exception of the year ended December 31, 2017, we have incurred significant operating losses and negative cash flows from operations since our inception. We had net income of $3.2 million and a net loss of $3.8 million for the three months ended March 31, 2019 and 2018, respectively. As of March 31, 2019, we had an accumulated deficit of $1.2 billion. We do not know whether we will ever achieve sustained profitability or whether cash flow from future operations will be sufficient to meet our needs.

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

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

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

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

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

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

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

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

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

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

Risks Related to Our Reliance on Third Parties

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Risks Related to an Investment in Our Common Stock

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

There can be no assurance the market price of our common stock will not decline below its present market price or there will be an active trading market for our common stock. The market prices of biotechnology companies have been and are likely to continue to be highly volatile. Fluctuations in our operating results and general market conditions for biotechnology stocks could have a significant impact on the volatility of our common stock price. We have experienced significant volatility in the price of our common stock. From January 1, 2019, through May 2, 2019, the share price of our common stock has ranged from a high of $16.10 to a low of $11.50. Additionally, we have two significant holders of our stock that could affect the liquidity of our stock and have a significant negative impact on our stock price if one or both of the holders were to quickly sell their ownership positions.

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

Our results of operations could be materially negatively affected by economic conditions generally, both in the United States and elsewhere around the world. Concerns over inflation, energy costs, geopolitical issues, the availability and cost of credit, and the U.S. financial markets have in the past contributed to, and may continue in the future contribute to, increased volatility and diminished expectations for the economy and the markets. Domestic and international equity markets periodically experience heightened volatility and turmoil. These events may have an adverse effect on us. In the event of a market downturn, our results of operations could be adversely affected by those factors in many ways, including making it more difficult for us to raise funds if necessary, and our stock price may decline.

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

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

We are authorized to issue, without stockholder approval, 1,000,000 shares of preferred stock, of which 5,003 shares of Series X preferred stock and 1,252.772 shares of Series Y preferred stock were issued and outstanding as of March 31, 2019. Each share of Series X and Series Y is convertible into 1,000 shares of registered common stock based on a conversion price of $4.03 per share and $13.00 per share of common stock, respectively. The total number of shares of common stock issued upon conversion of all issued Series X and Series Y convertible preferred stock will be 6,255,772 shares. Each share is convertible at the option of the holder at any time, provided that the holder will be prohibited from converting into common stock if, as a result of such conversion, the holder, together with its affiliates, would beneficially own a number of shares above a conversion blocker, which is initially set at 19.99% of

our total common stock then issued and outstanding immediately following the conversion of such shares. If we issue additional equity securities, the price of our common stock may be materially and adversely affected.

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

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

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

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

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

Our charter and by-laws:

- require certain procedures to be followed and time periods to be met for any stockholder to propose matters to be considered at annual meetings of stockholders, including nominating directors for election at those meetings; and
- authorize our Board of Directors to issue up to 1,000,000 shares of preferred stock without stockholder approval and to set the rights, preferences and other designations, including voting rights, of those shares as the Board of Directors may determine.

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

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

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

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

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

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

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

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

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

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

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

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

uncertain if and to what extent various states will conform to the federal tax law. The impact of this tax reform on holders of our common stock is also uncertain and could be adverse.

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

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

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

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

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

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

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

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

If our licensees' therapeutic product candidates do notreceive regulatory approval, our licensees will be unable to market them.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Developments by others may render our licensees' product candidates or technologies obsolete or uncompetitive. Technologies developed and utilized by the biotechnology and pharmaceutical industries are changing continuously and substantially. Competition in antibody-based technologies is intense and is expected to increase in the future as a number of established biotechnology firms and large chemical and pharmaceutical companies advance in these fields. Many of these competitors may be able to develop products and processes competitive with or superior to our own for many reasons, including that they may have:

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

These factors may enable others to develop products and processes competitive with or superior to our own or those of our licensees. In addition, a significant amount of research in biotechnology is being carried out in universities and other non-profit research organizations. These entities are becoming increasingly interested in the commercial value of their work and may become more aggressive in seeking patent protection and licensing arrangements. Furthermore, many companies and universities tend not to announce or disclose important discoveries or development programs until their patent position is secure or, for other reasons, later. As a result, we and our licensees may not be able to track development of competitive products, particularly at the early stages.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Due to the uncertainties regarding biotechnology patents, we also have relied and will continue to rely upon trade secrets, know-how and continuing technological advancement to develop and maintain our competitive position. Our employees and contractors are typically required to sign confidentiality agreements under which they agree not to use or disclose any of our proprietary information. Research and development contracts and relationships between us and our scientific consultants and potential licensees provide access to aspects of our know-how that are protected generally under confidentiality agreements. These confidentiality agreements may be breached or may not be enforced by a court. To the extent proprietary information is divulged to competitors or to the public generally, such disclosure may affect our licensees' ability to develop or commercialize our products adversely by giving others a competitive advantage or by undermining our patent position.

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

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

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

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

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

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

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

We had 11 employees as of May 2, 2019. We may require additional experienced executive, accounting, legal, administrative and other personnel from time to time in the future. There is intense competition for the services of these personnel, especially in California. Moreover, we expect that the high cost of living in the San Francisco Bay Area, where our headquarters are located, may impair our ability to attract and retain employees in the future. If we do not succeed in attracting new personnel and retaining and motivating existing personnel, our business may suffer and we may be unable to implement our current initiatives or grow effectively.

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

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

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

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

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

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

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

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

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

- harm to our reputation;
- fines imposed on us by regulatory authorities;
- additional compliance obligations under federal, state or foreign laws;
- requirements for mandatory corrective action to be taken by us; and
- requirements to verify the correctness of database contents and otherwise subject us to liability under laws and regulations that protect personal data.

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

jurisdictions, such as the California Consumer Privacy Act of 2018, which has been characterized as the first "GDPR-like" privacy statute to be enacted in the United States because it mirrors a number of the key provisions in the GDPR. We cannot presently determine the impact such laws, regulations and standards will have on our business. In any event, it is possible that governmental authorities will conclude that our business practices do not comply with current or future statutes, regulations, agency guidance or case law involving applicable healthcare or privacy laws, including the GDPR, in light of the lack of applicable precedent and regulations.

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

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

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

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

Risks Related to Government Regulation

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

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

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

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

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

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

An expansion in the government's role in the U.S. healthcare industry may cause general downward pressure on the prices of prescription drug products, lower reimbursements for providers, reduced product utilization and adversely affect our business and

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

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

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

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

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

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

Many states also have adopted laws similar to each of the federal laws described above, some of which apply to healthcare items or services reimbursed by any source, not only the Medicare and Medicaid programs. In addition, some states have laws that require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the applicable compliance guidance promulgated by the federal government, or otherwise restrict payments that may be made to healthcare providers and other potential referral sources, and to report information related to payments and other transfers of value to physicians and other healthcare providers; as well as state laws governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and may not have the same effect, thus complicating compliance efforts.

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

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

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

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

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

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

In March 2019, we issued a warrant to SVB which is exercisable in whole or in part for up to an aggregate of 4,845 shares of common stock with an exercise price of $14.71 per share. The warrant may be exercised on a cashless basis and is exercisable within 10 years from the date of issuance or upon the consummation of certain acquisitions of XOMA. The warrant was offered and sold in reliance upon the exemption from registration provided by Section 4(a)(2) under the Securities Act..

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

None.

ITEM 6. EXHIBITS

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 Amended 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	Certificate of Designation of Preferences, Rights and Limitations of Series Y Convertible Preferred Stock	8-K	000-14710	3.1	12/13/2018
3.7	By-laws of XOMA Corporation	8-K	000-14710	3.2	01/03/2012
4.1	Reference is made to Exhibits 3.1, 3.2, 3.3, 3.4, 3.5, 3.6 and 3.7				
4.2	Specimen of Common Stock Certificate	8-K	000-14710	4.1	01/03/2012
4.3	Form of Series X Preferred Stock Certificate	8-K	000-14710	4.1	02/16/2017
4.4	Form of Warrant (February 2015 Warrants)	10-Q	000-14710	4.10	05/07/2015
4.5	Form of Warrant (February 2016 Warrant)	10-Q	000-14710	4.9	05/04/2016
4.6	Form of Warrant (May 2018 Warrant)	10-Q	000-14710	4.6	08/07/2018
4.7+	Form of Warrant (March 2019 Warrant)				
10.1#	Amendment No. 2, dated January 7, 2019, to the License Agreement, dated December 6, 2017, between XOMA (US) LLC and Rezolute, Inc. (formerly AntriaBio)	10-K	000-14710	10.71	03/07/2019
10.2	Amendment No. 2, dated January 7, 2019, to the Common Stock Purchase Agreement, dated December 6, 2017, between XOMA (US) LLC and Rezolute, Inc. (formerly AntriaBio)	10-K	000-14710	10.72	03/07/2019
10.3+	First Amendment, dated March 4, 2019, to the Loan and Security Agreement dated May 7, 2018, between XOMA Corporation, XOMA (US) LLC and XOMA Technology, Ltd. and Silicon Valley Bank				
31.1+	Certification of Chief Executive Officer, as required by Rule 13a-14(a) or Rule 15d-14(a)				

Exhibit Number	Exhibit Description	Incorporation By Reference			
		Form	SEC File No.	Exhibit	Filing Date
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				

+ Filed herewith

Confidential treatment has been granted for certain provisions omitted from this Exhibit. The omitted information has been filed separately with the SEC.

(1) This certification accompanies the Form 10-Q 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-Q), irrespective of any general incorporation language contained in such filing.

SIGNATURES

Pursuant to the requirements 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.

XOMA Corporation

Date: May 6, 2019

By: /s/ JAMES R. NEAL
James R. Neal
Chief Executive Officer (principal executive officer) and Director

Date: May 6, 2019

By: /s/ THOMAS BURNS
Thomas Burns
Senior Vice President, Finance and Chief Financial Officer
(principal financial and principal accounting officer)

Exhibit 4.7

THIS WARRANT AND THE SHARES ISSUABLE HEREUNDER HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "**ACT** "), OR THE SECURITIES LAWS OF ANY STATE AND, EXCEPT AS SET FORTH IN SECTIONS 5.3 AND 5.4 BELOW, MAY NOT BE OFFERED, SOLD , PLEDGED OR OTHERWISE TRANSFERRED UNLESS AND UNTIL REGISTERED UNDER SAID ACT AND LAWS OR, IN THE OPINION OF LEGAL COUNSEL IN FORM AND SUBSTANCE SATISFACTORY TO THE ISSUER, SUCH OFFER, SALE , PLEDGE OR OTHER TRANSFER IS EXEMPT FROM SUCH REGISTRATION.

WARRANT TO PURCHASE STOCK

Company: XOMA Corporation, a Delaware corporation
Number of Shares: 4,845, subject to adjustment
Type/Series of Stock: Common Stock, $0.0075 par value per share
Warrant Price: $14.708 per Share, subject to adjustment
Issue Date: March 4, 2019
Expiration Date: March 3, 2029 **See also Section 5.1(b).**
Credit Facility: This Warrant to Purchase Stock ("**Warrant** ") is issued in connection with that certain First Amendment, of even date herewith, to that certain Loan and Security Agreement dated May 7, 2018, among Silicon Valley Bank, the Company, XOMA Technology Ltd. and XOMA (US) LLC (collectively, and as may be further amended and/or modified and in effect from time to time, the "**Loan Agreement** ").

THIS WARRANT CERTIFIES THAT, for good and valuable consideration, SILICON VALLEY BANK (together with any successor or permitted assignee or transferee of this Warrant or of any shares issued upon exercise hereof, "**Holder** ") is entitled to purchase up to such number of fully paid and non-assessable shares (the "**Shares** ") of the above-stated Type/Series of Stock (the "**Class**") of the above-named company (the "**Company**"), at the above-stated Warrant Price, all as set forth above and subject to the provisions and upon the terms and conditions set forth in this Warrant. Reference is made to Section 5.4 of this Warrant whereby Silicon Valley Bank shall transfer this Warrant to its parent company, SVB Financial Group.

SECTION 1. EXERCISE.

1.1 Method of Exercise . Holder may at any time and from time to time exercise this Warrant , in whole or in part, by delivering to the Company the original of this Warrant together with a duly executed Notice of Exercise in substantially the form attached hereto as Appendix 1 and, unless Holder is exercising this Warrant pursuant to a cashless exercise set forth in Section 1.2, a check, wire transfer of same-day funds (to an account designated by the Company), or other form of payment acceptable to the Company for the aggregate Warrant Price for the Shares being purchased.

1.2 Cashless Exercise . On any exercise of this Warrant, in lieu of payment of the aggregate Warrant Price in the manner as specified in Section 1.1 above, but otherwise in accordance with the requirements of Section 1.1, Holder may elect to receive Shares equal to the value of this Warrant, or portion hereof as to which this Warrant is being exercised. Thereupon, the Company shall issue to the Holder such number of fully paid and non-assessable Shares as are computed using the following formula:

$$X = Y(A-B)/A$$

where:

X = the number of Shares to be issued to the Holder;

Y = the number of Shares with respect to which this Warrant is being exercised (inclusive of the Shares surrendered to the Company in payment of the aggregate Warrant Price);

A = the Fair Market Value (as determined pursuant to Section 1.3 below) of one Share; and

B = the Warrant Price.

1.3 Fair Market Value . If shares of the Class are then traded or quoted on a nationally recognized securities exchange, inter-dealer quotation system or over-the-counter market (a "**Trading Market**"), the fair market value of a Share shall be the closing price or last sale price of a share of the Class reported for the Business Day immediately before the

date on which Holder delivers this Warrant together with its Notice of Exercise to the Company . If shares of the Class are not then traded in a Trading Market , the Board of Directors of the Company shall determine the fair market value of a Share in its reasonable good faith judgment.

1.4 Delivery of Certificate and New Warrant . Within a reasonable time after Holder exercises this Warrant in the manner set forth in Section 1.1 or 1.2 above , the Company shall deliver to Holder a certificate representing the Shares issued to Holder upon such exercise (which certificate may be in the form of an electronic certificate or DTC entry, to the extent used by the Company at the time of such exercise) and, if this Warrant has not been fully exercised and has not expired, a new warrant of like tenor representing the Shares not so acquired.

1.5 Replacement of Warrant . On receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant and, in the case of loss, theft or destruction, on delivery of an indemnity agreement reasonably satisfactory in form , substance and amount to the Company or, in the case of mutilation, on surrender of this Warrant to the Company for cancellation , the Company shall , within a reasonable time, execute and deliver to Holder , in lieu of this Warrant, a new warrant of like tenor and amount.

1.6 Treatment of Warrant Upon Acquisition of Company.

(a) Acquisition. For the purpose of this Warrant, "**Acquisition** " means any transaction or series of related transactions involving : (i) the sale, lease, exclusive license, or other disposition of all or substantially all of the assets of the Company; (ii) any merger or consolidation of the Company into or with another person or entity (other than a merger or consolidation effected exclusively to change the Company's domicile), or any other corporate reorganization, in which the stockholders of the Company in their capacity as such immediately prior to such merger, consolidation or reorganization, own less than a majority of the Company's (or the surviving or successor entity's) outstanding voting power immediately after such merger, consolidation or reorganization (or, if such Company stockholders beneficially own a majority of the outstanding voting power of the surviving or successor entity as of immediately after such merger, consolidation or reorganization, such surviving or successor entity is not the Company) ; or (iii) any sale or other transfer by the stockholders of the Company of shares representing at least a majority of the Company's then-total outstanding combined voting power.

(b) Treatment of Warrant at Acquisition . In the event of an Acquisition in which the consideration to be received by the Company's stockholders consists solely of cash, solely of Marketable Securities or a combination of cash and Marketable Securities (a "**Cash/Public Acquisition**"), and the fair market value of one Share as determined in accordance with Section 1.3 above would be greater than the Warrant Price in effect on such date immediately prior to such Cash/Public Acquisition, and Holder has not exercised this Warrant pursuant to Section 1.1 above as to all Shares, then this Warrant shall automatically be deemed to be Cashless Exercised pursuant to Section 1.2 above as to all Shares effective immediately prior to and contingent upon the consummation of a Cash/Public Acquisition. In connection with such Cashless Exercise, Holder shall be deemed to have restated each of the representations and warranties in Section 4 of the Warrant as of the date thereof and the Company shall promptly notify the Holder of the number of Shares (or such other securities) issued upon exercise. In the event of a Cash/Public Acquisition where the fair market value of one Share as determined in accordance with Section 1.3 above would be less than the Warrant Price in effect immediately prior to such Cash/Public Acquisition, then this Warrant will expire immediately prior to the consummation of such Cash/Public Acquisition.

(c) Upon the closing of any Acquisition other than a Cash/Public Acquisition , the acquiring, surviving or successor entity shall assume the obligations of this Warrant, and this Warrant shall thereafter be exercisable for the same securities and /or other property as would have been paid for the Shares issuable upon exercise of the unexercised portion of this Warrant as if such Shares were outstanding on and as of the closing of such Acquisition, subject to further adjustment from time to time in accordance with the provisions of this Warrant.

(d) As used in this Warrant, "**Marketable Securities**" means securities meeting all of the following requirements: (i) the issuer thereof is then subject to the reporting requirements of Section 13 or Section 15(d) of the Securities Exchange Act of 1934, as amended (the "**Exchange Act**"), and is then current in its filing of all required reports and other information under the Act and the Exchange Act; (ii) the class and series of shares or other security of the issuer that would be received by Holder in connection with the Acquisition were Holder to exercise this Warrant on or prior to the closing thereof is then traded in a Trading Market, and (iii) following the closing of such Acquisition, Holder would not be restricted from publicly re-selling all of the issuer's shares and/or other securities that would be received by Holder in such Acquisition were Holder to exercise this Warrant in full on or prior to the closing of such Acquisition, except to the extent that any such restriction (x) arises solely under federal or state securities laws, rules or regulations, and (y) does not extend beyond six (6) months from the closing of such Acquisition.

SECTION 2. ADJUSTMENTS TO THE SHARES AND WARRANT PRICE.

2.1 Stock Dividends, Splits, Etc . If the Company declares or pays a dividend or distribution on the outstanding shares of the Class payable in additional shares of the Class or other securities or property (other than cash), then upon exercise of this Warrant, for each Share acquired, Holder shall receive, without additional cost to Holder, the total number and kind of securities and property which Holder would have received had Holder owned the Shares of record as of the date the dividend or distribution occurred. If the Company subdivides the outstanding shares of the Class by reclassification or otherwise into a greater number of shares, the number of Shares purchasable hereunder shall be proportionately increased and the Warrant Price shall be proportionately decreased. If the outstanding shares of the Class are combined or consolidated, by reclassification or otherwise, into a lesser number of shares, the Warrant Price shall be proportionately increased and the number of Shares shall be proportionately decreased.

2.2 Reclassification, Exchange, Combinations or Substitution . Upon any event whereby all of the outstanding shares of the Class are reclassified, exchanged, combined, substituted, or replaced for, into, with or by Company securities of a different class and/or series, then from and after the consummation of such event, this Warrant will be exercisable for the number, class and series of Company securities that Holder would have received had the Shares been outstanding on and as of the consummation of such event, and subject to further adjustment thereafter from time to time in accordance with the provisions of this Warrant. The provisions of this Section 2.2 shall similarly apply to successive reclassifications, exchanges, combinations, substitutions, replacements or other similar events.

2.3 No Fractional Share . No fractional Share shall be issuable upon exercise of this Warrant and the number of Shares to be issued shall be rounded down to the nearest whole Share. If a fractional Share interest arises upon any exercise of the Warrant, the Company shall eliminate such fractional Share interest by paying Holder in cash the amount computed by multiplying the fractional interest by (i) the fair market value (as determined in accordance with Section 1.3 above) of a full Share , less (ii) the then-effective Warrant Price.

2.4 Notice/Certificate as to Adjustments. Upon each adjustment of the Warrant Price, Class and/or number of Shares, the Company, at the Company's expense, shall notify Holder in writing within a reasonable time setting forth the adjustments to the Warrant Price, Class and/or number of Shares and facts upon which such adjustment is based. The Company shall, upon written request from Holder, furnish Holder with a certificate of its Chief Financial Officer, including computations of such adjustment and the Warrant Price, Class and number of Shares in effect upon the date of such adjustment.

SECTION 3. REPRESENTATIONS AND COVENANTS OF THE COMPANY.

3.1 Representations and Warranties. The Company represents and warrants to, and agrees with, the Holder as follows:

(a) All Shares which may be issued upon the exercise of this Warrant shall, upon issuance, be duly authorized, validly issued, fully paid and non-assessable , and free of any liens and encumbrances except for restrictions on transfer provided for herein or under applicable federal and state securities laws.

(b) The Company covenants that it shall at all times cause to be reserved and kept available out of its authorized and unissued capital stock such number of shares of the Class and other securities as will be sufficient to permit the exercise in full of this Warrant.

3.2 Notice of Certain Events. If the Company proposes at any time to:

(a) declare any dividend or distribution upon the outstanding shares of the Class, whether in cash, property, stock, or other securities and whether or not a regular cash dividend;

(b) offer for subscription or sale pro rata to the holders of the outstanding shares of the Class any additional shares of any class or series of the Company's stock (other than pursuant to contractual pre-emptive rights);

(c) effect any reclassification, exchange, combination, substitution, reorganization or recapitalization of the outstanding shares of the Class; or

(d) effect an Acquisition or to liquidate, dissolve or wind up;

then, in connection with each such event, the Company shall give Holder notice thereof at the same time and in the same manner as given to holders of the outstanding shares of the Class.

SECTION 4. REPRESENTATIONS, WARRANTIES OF THE HOLDER.

The Holder represents and warrants to the Company as follows:

4.1 Purchase for Own Account. Except for the one-time transfer by Silicon Valley Bank to its parent corporation SVB Financial Group described in Section 5.4 below, this Warrant and the Shares to be acquired upon exercise of this Warrant by Holder are being acquired for investment for Holder's account, not as a nominee or agent, and not with a view to the public resale or distribution within the meaning of the Act. Holder also represents that it has not been formed for the specific purpose of acquiring this Warrant or the Shares.

4.2 Disclosure of Information. Holder is aware of the Company's business affairs and financial condition and has received or has had full access to all the information it considers necessary or appropriate to make an informed investment decision with respect to the acquisition of this Warrant and its underlying securities. Holder further has had an opportunity to ask questions and receive answers from the Company regarding the terms and conditions of the offering of this Warrant and its underlying securities and to obtain additional information (to the extent the Company possessed such information or could acquire it without unreasonable effort or expense) necessary to verify any information furnished to Holder or to which Holder has access.

4.3 Investment Experience. Holder understands that the purchase of this Warrant and its underlying securities involves substantial risk. Holder has experience as an investor in securities of companies in the development stage and acknowledges that Holder can bear the economic risk of such Holder's investment in this Warrant and its underlying securities and has such knowledge and experience in financial or business matters that Holder is capable of evaluating the merits and risks of its investment in this Warrant and its underlying securities and/or has a preexisting personal or business relationship with the Company and certain of its officers, directors or controlling persons of a nature and duration that enables Holder to be aware of the character, business acumen and financial circumstances of such persons.

4.4 Accredited Investor Status. Holder is an "accredited investor" within the meaning of Regulation D promulgated under the Act.

4.5 The Act. Holder understands that this Warrant and the Shares issuable upon exercise hereof have not been registered under the Act in reliance upon a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature of the Holder's investment intent as expressed herein. Holder understands that this Warrant and the Shares issued upon any exercise hereof must be held indefinitely unless subsequently registered under the Act and qualified under applicable state securities laws, or unless exemption from such registration and qualification are otherwise available. Holder is aware of the provisions of Rule 144 promulgated under the Act.

4.6 No Shareholder Rights. Without limiting any provision of this Warrant, Holder agrees that as a Holder of this Warrant it will not have any rights (including, but not limited to, voting rights) as a shareholder of the Company with respect to the Shares issuable hereunder unless and until the exercise of this Warrant and then only with respect to the Shares issued on such exercise.

SECTION 5. MISCELLANEOUS.

5.1 Term; Automatic Cashless Exercise Upon Expiration .

(a) Term. Subject to the provisions of Section 1.6 above, this Warrant is exercisable in whole or in part at any time and from time to time on or before 6:00 PM, Pacific time, on the Expiration Date and shall be void thereafter.

(b) Automatic Cashless Exercise upon Expiration. In the event that, upon the Expiration Date, the fair market value of one Share as determined in accordance with Section 1.3 above is greater than the Warrant Price in effect on such date, then this Warrant shall automatically be deemed on and as of such date to be exercised pursuant to Section 1.2 above as to all Shares for which it shall not previously have been exercised, and the Company shall, within a reasonable time, deliver a certificate representing the Shares issued upon such exercise to Holder (which certificate may be in the form of an electronic certificate or DTC entry, to the extent used by the Company at the time of such exercise).

5.2 Legends. Each certificate evidencing Shares shall be imprinted with a legend in substantially the following form:

THE SHARES EVIDENCED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "**ACT**") , OR THE SECURITIES LAWS OF ANY STATE AND, EXCEPT A S SET FORTH IN THAT CERTAIN WARRANT TO PURCHASE STOCK ISSUED BY THE ISSUER TO SILICON VALLEY BANK DATED MARCH 4, 2019, MAY NOT BE OFFERED, SOLD , PLEDGED OR OTHERWISE TRANSFERRED UNLESS AND UNTIL REGISTERED UNDER SAID ACT AND LAWS OR, IN THE OPINION OF LEGAL COUNSEL IN FORM AND SUBSTANCE SATISFACTORY TO THE ISSUER , SUCH OFFER, SALE , PLEDGE OR OTHER TRANSFER IS EXEMPT FROM SUCH REGISTRATION.

5.3 Compliance with Securities Laws on Transfer. This Warrant and the Shares issued upon exercise of this Warrant may not be transferred or assigned in whole or in part except in compliance with applicable federal and state securities laws by the transferor and the transferee (including, without limitation, the delivery of investment representation letters and legal opinions reasonably satisfactory to the Company, as reasonably requested by the Company). The Company shall not require Holder to provide an opinion of counsel if the transfer is to SVB Financial Group (Silicon Valley Bank's parent company) or any other affiliate of Holder, provided that any such transferee is an "accredited investor" as defined in Regulation D promulgated under the Act. Additionally, the Company shall also not require an opinion of counsel if there is no material question as to the availability of Rule 144 promulgated under the Act.

5.4 Transfer Procedure . After receipt by Silicon Valley Bank of the executed Warrant, Silicon Valley Bank will transfer all of this Warrant to its parent company, SVB Financial Group . By its acceptance of this Warrant, SVB Financial Group hereby makes to the Company each of the representations and warranties set forth in Section 4 hereof and agrees to be bound by all of the terms and conditions of this Warrant as if the original Holder hereof. Subject to the provisions of Section 5.3 and upon providing the Company with written notice, SVB Financial Group and any subsequent Holder may transfer all or part of this Warrant to any transferee, provided, however, in connection with any such transfer, SVB Financial Group or any subsequent Holder will give the Company notice of the portion of the Warrant being transferred with the name, address and taxpayer identification number of the transferee and Holder will surrender this Warrant to the Company for reissuance to the transferee(s) (and Holder if applicable); and provided further, that any subsequent transferee of this Warrant or of any portion hereof other than SVB Financial Group shall agree in writing with the Company to be bound by all of the terms and conditions of this Warrant.

5.5 Notices . All notices and other communications hereunder from the Company to the Holder, or vice versa, shall be deemed delivered and effective (i) when given personally, (ii) on the third (3rd) Business Day after being mailed by first-class registered or certified mail, postage prepaid, (iii) upon actual receipt if given by facsimile or electronic mail and such receipt is confirmed in writing by the recipient, or (iv) on the first Business Day following delivery to a reliable overnight courier service, courier fee prepaid, in any case at such address as may have been furnished to the Company or Holder, as the case may be, in writing by the Company or such Holder from time to time in accordance with the provisions of this Section 5.5. All notices to Holder shall be addressed as follows until the Company receives notice of a change of address in connection with a transfer or otherwise:

SVB Financial Group
Attn: Treasury Department
3003 Tasman Drive, HC 215
Santa Clara, CA 95054
Telephone: (408) 654-7400
Facsimile: (408) 988-8317
Email address: derivatives@svb.com

Notice to the Company shall be addressed as follows until Holder receives notice of a change in address:

XOMA Corporation
Attn: Chief Financial Officer
2200 Powell Street, Suite 310
Emeryville, CA 94608
Telephone: (510) 204-7200
Facsimile:
Email:

With a copy (which shall not constitute notice) to:

Cooley LLP
Attn: Michael E. Tenta
3175 Hanover Street
Palo Alto, CA 94304
Telephone: (650) 843-5636
Facsimile:
Email: mtenta@cooley.com

5.6 Waiver. This Warrant and any term hereof may be changed, waived, discharged or terminated (either generally or in a particular instance and either retroactively or prospectively) only by an instrument in writing signed by the party against which enforcement of such change, waiver, discharge or termination is sought.

5.7 Attorneys' Fees. In the event of any dispute between the parties concerning the terms and provisions of this Warrant, the party prevailing in such dispute shall be entitled to collect from the other party all costs incurred in such dispute, including reasonable attorneys' fees.

5.8 Counterparts; Facsimile/Electronic Signatures. This Warrant may be executed in counterparts, all of which together shall constitute one and the same agreement. Any signature page delivered electronically or by facsimile shall be binding to the same extent as an original signature page with regards to any agreement subject to the terms hereof or any amendment thereto.

5.9 Governing Law. This Warrant shall be governed by and construed in accordance with the laws of the State of California, without giving effect to its principles regarding conflicts of law.

5.10 Headings. The headings in this Warrant are for purposes of reference only and shall not limit or otherwise affect the meaning of any provision of this Warrant.

5.11 Business Days. "**Business Day**" is any day that is not a Saturday, Sunday or a day on which Silicon Valley Bank is closed.

[Remainder of page left blank intentionally]
[Signature page follows]

IN WITNESS WHEREOF, the parties have caused this Warrant to Purchase Stock to be executed by their duly authorized representatives effective as of the Issue Date written above.

"COMPANY"

XOMA CORPORATION

By: /s/ TOM BURNS

Name: Tom Burns

Title: Chief Financial Officer

"HOLDER"

SILICON VALLEY BANK

By: /s/ PETER SLETTELAND

Name: Peter Sletteland

Title: Vice President

APPENDIX 1

NOTICE OF EXERCISE

1. The undersigned Holder hereby exercises its right to purchase _____ shares of the Common/Series _____ Preferred [circle one] Stock of _____ (the "**Company**") in accordance with the attached Warrant To Purchase Stock, and tenders payment of the aggregate Warrant Price for such shares as follows:

[ ] check in the amount of $_____ payable to order of the Company enclosed herewith

[ ] Wire transfer of immediately available funds to the Company's account

[ ] Cashless Exercise pursuant to Section 1.2 of the Warrant

[ ] Other [Describe] _____

2. Please issue a certificate or certificates representing the Shares in the name specified below:

_____
Holder's Name

_____

_____
(Address)

3. By its execution below and for the benefit of the Company, Holder hereby restates each of the representations and warranties in Section 4 of the Warrant to Purchase Stock as of the date hereof.

HOLDER:

_____

By:_____

Name:_____

Title:_____

(Date):_____

FIRST AMENDMENT
TO
LOAN AND SECURITY AGREEMENT

This First Amendment to Loan and Security Agreement (this "**Amendment**") is entered into this 4th day of March, 2019 by and among (a) **SILICON VALLEY BANK** ("**Bank**") and (b) (i) **XOMA CORPORATION**, a Delaware corporation ("**XOMA**"), (ii) **XOMA (US) LLC**, a Delaware limited liability company ("**XOMA US**"), and (iii) **XOMA TECHNOLOGY LTD.**, a Bermuda exempted company ("**Bermuda Borrower**"; together with XOMA and XOMA US, individually and collectively, jointly and severally, the "**Borrower**"), whose address is 2200 Powell Street, Suite 310, Emeryville, California 94608.

Recitals

A. Bank and Borrower have entered into that certain Loan and Security Agreement dated as of May 7, 2018 (as the same may from time to time be amended, modified, supplemented or restated, the "**Loan Agreement**").

B. Bank has extended credit to Borrower for the purposes permitted in the Loan Agreement.

C. Borrower has requested that Bank amend the Loan Agreement to (i) extend the Draw Period End Date and (ii) make certain other revisions to the Loan Agreement as more fully set forth herein.

D. Bank has agreed to so amend certain provisions of the Loan Agreement, but only to the extent, in accordance with the terms, subject to the conditions and in reliance upon the representations and warranties set forth below.

Agreement

Now, Therefore, in consideration of the foregoing recitals and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, and intending to be legally bound, the parties hereto agree as follows:

1. Definitions. Capitalized terms used but not defined in this Amendment shall have the meanings given to them in the Loan Agreement.

2. Amendments to Loan Agreement.

2.1 Section 2.3 (Fees). Section 2.3 is hereby amended by (i) deleting "and" appearing at the end of subsection (c), (ii) deleting "." appearing at the end of subsection (d) and replacing it with "; and", and (iii) inserting the following to appear as subsection (e) thereof:

" (e)Modification Fee. A fully earned, non-refundable modification fee of Twenty-Three Thousand Seven Hundred Fifty Dollars ($23,750.00) (the "**Modification Fee**"). The Modification Fee shall be fully earned as of the First Amendment Effective Date and is due and payable on the earliest to occur of (i) the Term Loan Maturity Date, (ii) the payment in full of the Term Loan Advances, (iii) the occurrence of an Event of Default, and (iv) the termination of this Agreement."

2.2 Section 13 (Definitions). The following terms and their respective definitions set forth in Section 13.1 are amended in their entirety and replaced with the following:

" "**Draw Period End Date**" is March 31, 2020."

" "**Obligations**" are Borrower's obligations to pay when due any debts, principal, interest, fees, the Final Payment, the Prepayment Premium, the Unused Term Loan Fee, the Modification Fee, Bank Expenses, and other amounts Borrower owes Bank now or later, whether under this Agreement, the other Loan Documents (other than the Warrant), or otherwise, including, without limitation, any interest accruing after Insolvency Proceedings begin and debts, liabilities, or obligations of Borrower assigned to Bank, and to perform Borrower's duties under the Loan Documents (other than the Warrant).

" "**Warrant**" is, collectively, (a) that certain warrant to purchase stock dated as of May 7, 2018 by and between XOMA and Bank, and (b) that certain warrant to purchase stock dated as of the First Amendment Effective Date by and between XOMA and Bank, in each case, as may be amended, modified, supplemented and/or restated from time to time."

2.3 **Section 13** (**Definitions**). The following new defined terms are hereby inserted alphabetically in Section 13.1:

" "**First Amendment Effective Date**" is March 4, 2019."

" "**Modification Fee**" is defined in Section 2.3(e)."

2.4 **Section 13** (**Definitions**). The following term and its definition set forth in Section 13.1 is deleted in its entirety:

" "**Milestone Event**" means delivery by Borrower to Bank of evidence satisfactory to Bank, in Bank's sole but reasonable discretion, after the Effective Date, but on or prior to March 31, 2019, that Borrower has received at least Twenty Million Dollars ($20,000,000.00) in unrestricted and unencumbered gross cash proceeds from milestone/licensing payments for the period commencing on the Effective Date and ending on or prior to March 31, 2019."

3. **Limitation of Amendments.**

3.1 The amendments set forth in Section 2 above are effective for the purposes set forth herein and shall be limited precisely as written and shall not be deemed to (a) be a consent to any amendment, waiver or modification of any other term or condition of any Loan Document, or (b) otherwise prejudice any right or remedy which Bank may now have or may have in the future under or in connection with any Loan Document.

3.2 This Amendment shall be construed in connection with and as part of the Loan Documents and all terms, conditions, representations, warranties, covenants and agreements set forth in the Loan Documents, except as herein amended, are hereby ratified and confirmed and shall remain in full force and effect.

4. **Representations and Warranties.** To induce Bank to enter into this Amendment, Borrower hereby represents and warrants to Bank as follows:

4.1 Immediately after giving effect to this Amendment (a) the representations and warranties contained in the Loan Documents are true, accurate and complete in all material respects as of the date hereof (except to the extent such representations and warranties relate to an earlier date, in which case they are true and correct as of such date), and (b) no Event of Default has occurred and is continuing;

4.2 Borrower has the power and authority to execute and deliver this Amendment and to perform its obligations under the Loan Agreement, as amended by this Amendment;

4.3 The organizational documents of Borrower delivered to Bank on the Effective Date remain true, accurate and complete and have not been amended, supplemented or restated and are and continue to be in full force and effect;

4.4 The execution and delivery by Borrower of this Amendment and the performance by Borrower of its obligations under the Loan Agreement, as amended by this Amendment, have been duly authorized;

4.5 The execution and delivery by Borrower of this Amendment and the performance by Borrower of its obligations under the Loan Agreement, as amended by this Amendment, do not and will not contravene (a) any law or regulation binding on or affecting Borrower, (b) any contractual restriction with a Person binding on Borrower, (c) any order, judgment or decree of any court or other governmental or public body or authority, or subdivision thereof, binding on Borrower, or (d) the organizational documents of Borrower;

4.6 The execution and delivery by Borrower of this Amendment and the performance by Borrower of its obligations under the Loan Agreement, as amended by this Amendment, do not require any order, consent, approval,

license, authorization or validation of, or filing, recording or registration with, or exemption by any governmental or public body or authority, or subdivision thereof, binding on Borrower, except as already has been obtained or made; and

4.7 This Amendment has been duly executed and delivered by Borrower and is the binding obligation of Borrower, enforceable against Borrower in accordance with its terms, except as such enforceability may be limited by bankruptcy, insolvency, reorganization, liquidation, moratorium or other similar laws of general application and equitable principles relating to or affecting creditors' rights.

5. Ratification of Intellectual Property Security Agreements. XOMA hereby ratifies, confirms and reaffirms, all and singular, the terms and conditions of a certain Intellectual Property Security Agreement dated as of May 7, 2018 between XOMA and Bank (the "**XOMA IPSA**"), and acknowledges, confirms and agrees that the XOMA IPSA (a) contains an accurate and complete listing of all Intellectual Property Collateral, as defined in the XOMA IPSA, and (b) shall remain in full force and effect. XOMA US hereby ratifies, confirms and reaffirms, all and singular, the terms and conditions of a certain Intellectual Property Security Agreement dated as of May 7, 2018 between XOMA US and Bank (the "**XOMA US IPSA**"), and acknowledges, confirms and agrees that the XOMA US IPSA (a) contains an accurate and complete listing of all Intellectual Property Collateral, as defined in the XOMA US IPSA, and (b) shall remain in full force and effect. Bermuda Borrower hereby ratifies, confirms and reaffirms, all and singular, the terms and conditions of a certain Intellectual Property Security Agreement dated as of May 7, 2018 between Bermuda Borrower and Bank (the "Bermu**da Borrower IPSA**"), and acknowledges, confirms and agrees that the Bermuda Borrower IPSA (a) contains an accurate and complete listing of all Intellectual Property Collateral, as defined in the Bermuda Borrower IPSA, and (b) shall remain in full force and effect.

6. Ratification of Perfection Certificates. XOMA hereby ratifies, confirms and reaffirms, all and singular, the terms and disclosures contained in a certain Perfection Certificate of XOMA dated as of May 7, 2018, as amended as set forth on Schedule 1 attached hereto (the "**XOMA Perfection Certificate**") and acknowledges, confirms and agrees the disclosures and information XOMA provided to Bank in the XOMA Perfection Certificate have not changed, as of the date hereof. XOMA US hereby ratifies, confirms and reaffirms, all and singular, the terms and disclosures contained in a certain Perfection Certificate of XOMA US dated as of May 7, 2018, as amended as set forth on Schedule 2 attached hereto (the "**XOMA US Perfection Certificate**") and acknowledges, confirms and agrees the disclosures and information XOMA US provided to Bank in the XOMA US Perfection Certificate have not changed, as of the date hereof. Bermuda Borrower hereby ratifies, confirms and reaffirms, all and singular, the terms and disclosures contained in a certain Perfection Certificate of Bermuda Borrower dated as of May 7, 2018, as amended as set forth on Schedule 3 attached hereto (the "**Bermuda Borrower Perfection Certificate**" and collectively with the XOMA Perfection Certificate and the XOMA US Perfection Certificate, the "**Perfection Certificate**") and acknowledges, confirms and agrees the disclosures and information Bermuda Borrower provided to Bank in the Bermuda Borrower Perfection Certificate have not changed, as of the date hereof. Borrower hereby agrees that all references in the Loan Agreement to the "Perfection Certificate" shall hereinafter be deemed to be references to the Perfection Certificate, as defined herein.

7. Integration. This Amendment and the Loan Documents represent the entire agreement about this subject matter and supersede prior negotiations or agreements. All prior agreements, understandings, representations, warranties, and negotiations between the parties about the subject matter of this Amendment and the Loan Documents merge into this Amendment and the Loan Documents.

8. Counterparts. This Amendment may be executed in any number of counterparts and all of such counterparts taken together shall be deemed to constitute one and the same instrument.

9. Effectiveness. This Amendment shall be deemed effective upon (a) the due execution and delivery to Bank of this Amendment by each party hereto, and (b) Borrower's payment to Bank of Bank's legal fees and expenses incurred in connection with this Amendment.

[Signature page follows.]

In Witness Whereof, the parties hereto have caused this Amendment to be duly executed and delivered as of the date first written above.

BANK

SILICON VALLEY BANK

By: /s/ PETER SLETTELAND
Name: Peter Sletteland
Title: Vice President

BORROWER

XOMA CORPORATION

By: /s/ TOM BURNS
Name: Tom Burns
Title: Chief Financial Officer

XOMA (US) LLC

By: /s/ TOM BURNS
Name: Tom Burns
Title: Chief Financial Officer

XOMA TECHNOLOGY LTD.

By: /s/ TOM BURNS
Name: Tom Burns
Title: Chief Financial Officer

The undersigned hereby certifies, to the best of his or her knowledge, that the information set out in the XOMA Perfection Certificate is true, complete and correct.

XOMA CORPORATION

By: /s/ TOM BURNS
Name: Tom Burns
Title: Chief Financial Officer
Email: burns@xoma.com
Phone: 510-204-7276

The undersigned hereby certifies, to the best of his or her knowledge, that the information set out in the XOMA US Perfection Certificate is true, complete and correct.

XOMA (US) LLC

By: /s/ TOM BURNS
Name: Tom Burns
Title: Chief Financial Officer
Email: burns@xoma.com
Phone: 510-204-7276

The undersigned hereby certifies, to the best of his or her knowledge, that the information set out in the Bermuda Borrower Perfection Certificate is true, complete and correct.

XOMA TECHNOLOGY LTD.

By: /s/ TOM BURNS
Name: Tom Burns
Title: Chief Financial Officer
Email: burns@xoma.com
Phone: 510-204-7276

Schedule 1

Amendments to XOMA Perfection Certificate

1. The XOMA Perfection Certificate is amended by inserting the following text to appear as new Section 15 thereof, immediately following Section 14 thereof:

"**15. BENEFICIAL OWNERSHIP INFORMATION**

a. Is the Company any of the following:

(i) a public company or an issuer of securities that are registered with the Securities and Exchange Commission under Section 12 of the Securities Exchange Act of 1934 or that is required to file reports under Section 15(d) of that Act;

(ii) an investment company registered with the Securities and Exchange Commission under the Investment Company Act of 1940;

(iii) an investment adviser registered with the Securities and Exchange Commission under the Investment Advisers Act of 1940; or

(iv) a pooled investment vehicle operated or advised by a regulated financial institution (including an SEC-registered investment adviser)?

Yes ☒ No☐

If yes, no further information is required for Sections 15(b), 15(c) or 15(d) below. If no, continue to Section 15(b).

b. Is the Company a pooled investment vehicle that is ***not*** operated or advised by a regulated financial institution?

Yes ☐ No☐

If yes, skip to Section 15(d) below. If no, continue to Section 15(c).

c. Does any **individual**, *directly or indirectly* (for example, if applicable, through such individual's equity interests in the Company's parent entity), through any contract, arrangement, understanding, relationship or otherwise, **own 25% or more** of the equity interests of the Company:

Yes ☐ No☐

If yes, complete the following information. If no, continue to Section 15(d) below.

	Name	Date of birth	Residential address	For US Persons, Social Security Number: (non-US persons should provide SSN if available)	For Non-US Persons: Type of ID, ID number, country of issuance, expiration date
1					
2					
3					
4					

d.Identify one individual with significant responsibility for managing the Company, i.e., an executive officer or senior manager (e.g., Chief Executive Officer, President, Vice President, Chief Financial Officer, Treasurer, Chief Operating Officer, Managing Member or General Partner) or any other individual who regularly performs similar functions. If appropriate, an individual listed in Section 15(c) above may also be listed here.

	Name	Date of birth	Residential address	For US Persons, Social Security Number: (non-US persons should provide SSN if available)	For Nor Type numbe issuanc
1					

Schedule 2

Amendments to XOMA US Perfection Certificate

2. The XOMA US Perfection Certificate is amended by inserting the following text to appear as new Section 14 thereof, immediately following Section 13 thereof:

"**15. BENEFICIAL OWNERSHIP INFORMATION**

a. Is the Company any of the following:

(v) a public company or an issuer of securities that are registered with the Securities and Exchange Commission under Section 12 of the Securities Exchange Act of 1934 or that is required to file reports under Section 15(d) of that Act;

(vi) an investment company registered with the Securities and Exchange Commission under the Investment Company Act of 1940;

(vii) an investment adviser registered with the Securities and Exchange Commission under the Investment Advisers Act of 1940; or

(viii) a pooled investment vehicle operated or advised by a regulated financial institution (including an SEC-registered investment adviser)?

Yes ☐ No ☒

If yes, no further information is required for Sections 14(b), 14(c) or 14(d) below. If no, continue to Section 14(b).

b. Is the Company a pooled investment vehicle that is ***not*** operated or advised by a regulated financial institution?

Yes ☐ No☒

If yes, skip to Section 14(d) below. If no, continue to Section 14(c).

c. Does any **individual**, *directly or indirectly* (for example, if applicable, through such individual's equity interests in the Company's parent entity), through any contract, arrangement, understanding, relationship or otherwise, **own 25% or more** of the equity interests of the Company:

Yes ☐ No☒

If yes, complete the following information. If no, continue to Section 14(d) below.

	Name	Date of birth	Residential address	For US Persons, Social Security Number: (non-US persons should provide SSN if available)	For Non-US Persons: Type of ID, ID number, country of issuance, expiration date
1					
2					
3					
4					

d.Identify one individual with significant responsibility for managing the Company, i.e., an executive officer or senior manager (e.g., Chief Executive Officer, President, Vice President, Chief Financial Officer, Treasurer, Chief Operating Officer, Managing Member or General Partner) or any other individual who regularly performs similar functions. If appropriate, an individual listed in Section 14(c) above may also be listed here.

	Name	Date of birth	Residential address	For US Persons, Social Security Number: (non-US persons should provide SSN if available)	For Non Type numbe issuanc
1	Thomas Burns	6/19/1973	384 Riviera Dr., San Rafael, CA 94901		

Schedule 3

Amendments to Bermuda Borrower Perfection Certificate

3. The Bermuda Borrower Perfection Certificate is amended by inserting the following text to appear as new Section 14 thereof, immediately following Section 13 thereof:

"**15. BENEFICIAL OWNERSHIP INFORMATION**

a. Is the Company any of the following:

(ix) a public company or an issuer of securities that are registered with the Securities and Exchange Commission under Section 12 of the Securities Exchange Act of 1934 or that is required to file reports under Section 15(d) of that Act;

(x) an investment company registered with the Securities and Exchange Commission under the Investment Company Act of 1940;

(xi) an investment adviser registered with the Securities and Exchange Commission under the Investment Advisers Act of 1940; or

(xii) a pooled investment vehicle operated or advised by a regulated financial institution (including an SEC-registered investment adviser)?

Yes ☐ No☒

If yes, no further information is required for Sections 14(b), 14(c) or 14(d) below. If no, continue to Section 14(b).

b. Is the Company a pooled investment vehicle that is ***not*** operated or advised by a regulated financial institution?

Yes ☐ No☒

If yes, skip to Section 14(d) below. If no, continue to Section 14(c).

c. Does any **individual**, *directly or indirectly* (for example, if applicable, through such individual's equity interests in the Company's parent entity), through any contract, arrangement, understanding, relationship or otherwise, **own 25% or more** of the equity interests of the Company:

Yes ☐ No☒

If yes, complete the following information. If no, continue to Section 14(d) below.

	Name	Date of birth	Residential address	For US Persons, Social Security Number: (non-US persons should provide SSN if available)	For Non-US Persons: Type of ID, ID number, country of issuance, expiration date
1					
2					
3					
4					

d.Identify one individual with significant responsibility for managing the Company, i.e., an executive officer or senior manager (e.g., Chief Executive Officer, President, Vice President, Chief Financial Officer, Treasurer, Chief Operating Officer, Managing Member or General Partner) or any other individual who regularly performs similar functions. If appropriate, an individual listed in Section 14(c) above may also be listed here.

	Name	Date of birth	Residential address	For US Persons, Social Security Number: (non-US persons should provide SSN if available)	For Nor Type numbe issuanc
1	Thomas Burns	6/19/1973	384 Riviera Dr., San Rafael, CA 94901		

Exhibit 31.1

CERTIFICATION

I, James R. Neal, certify that:

1. I have reviewed this quarterly report on Form 10-Q of XOMA Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and we have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ JAMES R. NEAL

Date: May 6, 2019

James R. Neal
Chief Executive Officer

Exhibit 31.2

CERTIFICATION

I, Thomas Burns, certify that:

1. I have reviewed this quarterly report on Form 10-Q of XOMA Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and we have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 6, 2019

/s/ THOMAS BURNS

Thomas Burns

Senior Vice President, Finance, and Chief Financial Officer

Exhibit 32.1

CERTIFICATION

Pursuant to the requirement set forth in Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended, (the "Exchange Act") and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. §1350), James R. Neal, Chief Executive Officer of XOMA Corporation (the "Company"), and Thomas Burns, Chief Financial Officer of the Company, each hereby certifies that, to the best of his or her knowledge:

1. The Company's Quarterly Report on Form 10-Q for the period endedMarch 31, 2019, to which this Certification is attached as Exhibit 32.1 (the "Periodic Report"), fully complies with the requirements of Section 13(a) or Section 15(d) of the Exchange Act; and

2. The information contained in the Periodic Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

IN WITNESS WHEREOF, the undersigned have set their hands hereto as of the 6th day of May 2019.

/s/ JAMES R. NEAL
James R. Neal
Chief Executive Officer

/s/ THOMAS BURNS
Thomas Burns
Senior Vice President, Finance, and Chief Financial Officer

This certification accompanies the Form 10-Q 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 XOMA Corporation 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-Q), irrespective of any general incorporation language contained in such filing.