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 September 30, 2017
OR

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

Commission file number 001-38129

Mersana Therapeutics, Inc.
(Exact name of registrant as specified in its charter)

Delaware	**04-3562403**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

840 Memorial Drive Cambridge, MA 02139
(Address of principal executive offices)
(Zip Code)

(617) 498-0020
(Registrant's telephone number, including area code)

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

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

Indicate by check mark 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. (Check one):

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer (do not check if a smaller reporting company)	☒	Smaller reporting company	☐
Emerging growth company	☒		

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided 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 ☒.

There were 22,753,404 shares of Common Stock ($0.0001 par value per share) outstanding as of November 8, 2017.

Unless otherwise stated, all references to "us," "our," "Mersana," "Mersana Therapeutics," "we," the "Company" and similar designations in this Quarterly Report on Form 10-Q refer to Mersana Therapeutics, Inc. and its consolidated subsidiary, Mersana Securities Corp.

FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q contains forward-looking statements. Forward-looking statements are neither historical facts nor assurances of future performance. Instead, they are based on our current beliefs, expectations and assumptions regarding the future of our business, future plans and strategies, our clinical results and other future conditions. The words "anticipate," "believe," "estimate," "expect," "goal," "intend," "may," "seek," "plan," "predict," "project," "target," "potential," "will," "would," "possible," "could," "should," "continue," "contemplate" or the negative of these terms or other similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words.

These forward-looking statements include, among other things, statements about:

- the initiation, cost, timing, progress and results of our current and future research and development activities, preclinical studies and clinical trials;
- the potential benefits of strategic partnership agreements and our ability to enter into selective strategic partnership arrangements;
- the timing of, and our ability to obtain and maintain, regulatory approvals for our product candidates;
- our ability to quickly and efficiently identify and develop additional product candidates;
- our ability to advance any product candidate into, and successfully complete clinical trials;
- our intellectual property position, including with respect to our trade secrets; and
- our estimates regarding expenses, future revenues, capital requirements, the sufficiency of our current and expected cash resources and our need for additional financing.

We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. We have included important factors in the cautionary statements included in this Quarterly Report on Form 10-Q, particularly in the "Risk factors" section, that we believe could cause actual results or events to differ materially from the forward-looking statements that we make. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments we may make.

The forward-looking statements contained herein represent our views as of the date of this Quarterly Report on Form 10-Q. We anticipate that subsequent events and developments will cause our views to change. However, although we may elect to update these forward-looking statements at some point in the future, we have no current intention of doing so except to the extent required by applicable law. You should, therefore, not rely on these forward-looking statements as representing our views as of any date subsequent to the date of this Quarterly Report on Form 10-Q.

TABLE OF CONTENTS

PART I – FINANCIAL INFORMATION

Item 1. Financial Statements

Mersana Therapeutics, Inc.
Condensed Consolidated Balance Sheets
(unaudited)
(in thousands, except share and per share data)

	September 30, 2017	December 31, 2016
Assets		
Current assets:		
Cash and cash equivalents	$ 50,756	$ 100,297
Short-term marketable securities	82,622	—
Accounts receivable	731	1,051
Prepaid expenses and other current assets	2,616	825
Total current assets	136,725	102,173
Property and equipment, net	2,325	2,483
Long-term marketable securities	3,482	—
Other assets	384	431
Total assets	$ 142,916	$ 105,087
Liabilities, convertible preferred stock and stockholders' equity (deficit)		
Current liabilities:		
Accounts payable	$ 3,215	$ 2,068
Accrued expenses	4,607	3,428
Deferred rent	215	159
Deferred revenue	16,476	22,731
Total current liabilities	24,513	28,386
Deferred rent, net of current portion	128	299
Deferred revenue, net of current portion	34,633	37,571
Commitments (Note 10)		
Series A-1 convertible preferred stock, $0.0001 par value: 0 and 25,085,153 shares authorized, issued and outstanding at September 30, 2017 and December 31, 2016, respectively	—	26,336
Series B-1 convertible preferred stock, $0.0001 par value: 0 and 32,936,919 shares authorized, issued and outstanding at September 30, 2017 and December 31, 2016, respectively	—	35,232
Series C-1 convertible preferred stock, $0.0001 par value: 0 and 14,674,062 shares authorized, issued and outstanding at September 30, 2017 and December 31, 2016, respectively	—	32,882
Stockholders' equity (deficit)		
Preferred stock, $0.0001 par value; 25,000,000 and 0 shares authorized; 0 shares issued and outstanding at September 30, 2017 and December 31, 2016, respectively	—	—
Common stock, $0.0001 par value; 175,000,000 and 95,000,000 shares authorized; 22,734,333 and 1,294,352 shares issued and outstanding at September 30, 2017 and December 31, 2016, respectively	3	1
Additional paid-in capital	167,565	3,551
Accumulated other comprehensive loss	(15)	—
Accumulated deficit	(83,911)	(59,171)
Total stockholders' equity (deficit)	83,642	(55,619)
Total liabilities, convertible preferred stock, and stockholders' equity (deficit)	$ 142,916	$ 105,087

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

Mersana Therapeutics, Inc.
Condensed Consolidated Statements of Operations and Comprehensive Loss
(unaudited)
(in thousands, except share and per share data)

	Three months ended		Nine months ended	
	September 30, 2017	September 30, 2016	September 30, 2017	September 30, 2016
Collaboration revenue	$ 6,267	$ 3,262	$ 14,284	$ 13,175
Operating expenses:				
Research and development	11,412	7,555	32,145	23,163
General and administrative	2,905	1,598	7,406	5,044
Total operating expenses	14,317	9,153	39,551	28,207
Other income:				
Interest income	318	54	527	73
Total other income	318	54	527	73
Net loss	$ (7,732)	$ (5,837)	$ (24,740)	$ (14,959)
Other comprehensive loss:				
Unrealized loss on marketable securities	(6)	—	(15)	—
Comprehensive loss	$ (7,738)	$ (5,837)	$ (24,755)	$ (14,959)
Net loss per share attributable to common stockholders — basic and diluted	$ (0.35)	$ (4.56)	$ (2.94)	$ (11.72)
Weighted-average number of common shares used in net loss per share attributable to common stockholders — basic and diluted	22,242,129	1,279,383	8,407,541	1,276,819

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

Mersana Therapeutics, Inc.
Condensed Consolidated Statements of Cash Flows
(unaudited)
(in thousands)

	Nine months ended September 30,	
	2017	**2016**
Cash flows from operating activities		
Net loss	$ (24,740)	$ (14,959)
Adjustments to reconcile net loss to net cash (used in) provided by operating activities:		
Depreciation	673	449
Net amortization of premiums and discounts on investments	(118)	—
Stock-based compensation	990	437
Change in deferred rent	(115)	473
Changes in operating assets and liabilities:		
Accounts receivable	320	(173)
Prepaid expenses and other current assets	(1,791)	(437)
Other assets	47	—
Accounts payable	1,112	(749)
Accrued expenses	1,132	884
Deferred revenue	(9,193)	32,487
Net cash (used in) provided by operating activities	(31,683)	18,412
Cash flows from investing activities		
Purchase of property and equipment	(433)	(1,338)
Purchase of marketable securities	(111,321)	—
Maturities of marketable securities	25,320	—
Net cash used in investing activities	(86,434)	(1,338)
Cash flows from financing activities		
Net proceeds from sale of Series B-1 convertible preferred stock	—	25,272
Net proceeds from sale of Series C-1 convertible preferred stock	—	32,882
Net proceeds from initial public offering	67,420	—
Net proceeds from issuance of common stock upon partial exercise of overallotment	725	—
Proceeds from exercise of stock options	431	81
Net cash provided by financing activities	68,576	58,235
Increase (decrease) in cash and cash equivalents	(49,541)	75,309
Cash and cash equivalents, beginning of period	100,297	11,534
Cash and cash equivalents, end of period	$ 50,756	$ 86,843
Supplemental disclosures of non-cash activities:		
Conversion of preferred stock to common stock upon closing of initial public offering	$ 94,450	$ —
Purchases of property and equipment included in accounts payable and accrued expenses	$ 82	$ 18
Purchases of property and equipment reimbursed by landlord	$ —	$ 356

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

Mersana Therapeutics, Inc.
Notes to condensed consolidated financial statements
(unaudited)
(in thousands, except share and per share data)

1. Nature of business and basis of presentation

Mersana Therapeutics, Inc. (the Company) is a clinical stage company located in Cambridge, Massachusetts. The Company is advancing a proprietary pipeline of targeted oncology therapeutics leveraging its Dolaflexin® antibody drug conjugate (ADC) platform. Mersana's first product candidate, XMT-1522, designed to address a much broader population of patients with HER2-expressing tumors than served by currently approved HER2 therapies, is currently in a Phase 1 dose escalation study. The Company's second product candidate, XMT-1536, is an ADC targeting NaPi2b, an antigen broadly expressed in certain types of cancer. In October 2017, the Company received FDA clearance of the XMT-1536 IND and we expect to begin dosing patients in early 2018. The Company also has partnerships utilizing the Dolaflexin platform with multiple strategic partners.

The Company is subject to risks common to companies in the biotechnology industry, including but not limited to, risks of failure of preclinical studies and clinical trials, the need to obtain marketing approval for any drug product candidate that it may identify and develop, the need to successfully commercialize and gain market acceptance of its product candidates, dependence on key personnel, protection of proprietary technology, compliance with government regulations, development of technological innovations by competitors, reliance on third party manufacturers and ability to transition from pilot-scale production to large-scale manufacturing of products.

On July 3, 2017, the Company completed an initial public offering (IPO), in which the Company issued and sold 5,000,000 shares of its common stock at a public offering price of $15.00 per share, for aggregate gross proceeds of $75,000. The Company received $67,420 in net proceeds after deducting $7,580 of underwriting discounts and commissions and offering costs. On August 2, 2017, the Company issued and sold 51,977 shares of common stock at $15.00 per share for gross proceeds of $780 upon the partial exercise of the underwriters' overallotment option. The Company received net proceeds of $725 after deducting $55 in underwriting discounts and commissions.

Upon the closing of the IPO, all of the outstanding shares of convertible preferred stock automatically converted into 16,154,671 shares of common stock. Subsequent to the closing of the IPO, there were no shares of preferred stock outstanding. In connection with the IPO, the Company amended and restated its certificate of incorporation to change the authorized capital stock to 175,000,000 shares designated as common stock and 25,000,000 shares designated as preferred stock, all with a par value of $0.0001 per share.

In connection with preparing for its IPO, the Company effected a 1-for-4.5 reverse stock split of the Company's common stock. The reverse stock split became effective on June 15, 2017. The par value and authorized shares of common stock and convertible preferred stock were not adjusted as a result of the reverse stock split. All share and per share amounts in the financial statements and notes thereto have been retroactively adjusted for all periods presented to give effect to this reverse stock split, including reclassifying an amount equal to the reduction in par value of common stock to additional paid-in capital. The financial statements have also been retroactively adjusted to reflect adjustments to the conversion ratio for each series of convertible preferred stock effected in connection with the reverse stock split.

The Company has incurred net losses since inception. The Company's net loss was $24,740 for the nine months ended September 30, 2017 and $13,700 for the year ended December 31, 2016. The Company expects to continue to incur operating losses for at least the next several years. As of September 30, 2017, the Company had an accumulated deficit of $83,911. The future success of the Company is dependent on its ability to identify and develop its product candidates, and ultimately upon its ability to attain profitable operations. The Company has devoted substantially all of its financial resources and efforts to research and development and general and administrative expense to support such research and development. The Company's net losses may fluctuate significantly from quarter to quarter and year to year. Net losses and negative cash flows have had, and will continue to have, an adverse effect on the Company's stockholders' deficit and working capital. The Company believes that its existing cash, cash equivalents and marketable securities as of September 30, 2017, will enable it to fund its operating plan through at least mid-2019, which the Company expects will allow it to achieve initial clinical data readouts for its two lead development programs.

The Company's unaudited interim condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States (U.S. GAAP) and the rules and regulations of the Securities and Exchange Commission (SEC). Any reference in these notes to applicable guidance is meant to refer to the authoritative United States generally accepted accounting principles as found in the Accounting Standards Codification (ASC) and Accounting Standards Updates (ASU) of the Financial Accounting Standards Board (FASB). Certain information and footnote disclosures normally included in financial statements prepared in accordance with U.S. GAAP have been condensed or omitted from this report, as is permitted by such rules and regulations. Accordingly, these financial statements should be read in conjunction with the audited financial statements as of and for the year ended December 31, 2016 and notes thereto, included in the Company's final prospectus for the IPO filed with the Securities and Exchange Commission pursuant to Rule 424(b)(4) on June 29, 2017 (the Prospectus).

The unaudited interim consolidated financial statements have been prepared on the same basis as the audited financial statements. In the opinion of the Company's management, the accompanying unaudited interim condensed consolidated financial statements contain all adjustments which are necessary to present fairly the Company's financial position as of September 30, 2017, the results of its operations for the three and nine months ended September 30, 2017 and 2016 and cash flows for the nine months ended September 30, 2017 and 2016. Such adjustments are of a normal and recurring nature. The results for the three and nine months ended September 30, 2017 are not necessarily indicative of the results for the year ending December 31, 2017, or for any future period.

2. Summary of significant accounting policies

Principles of consolidation

The accompanying condensed consolidated financial statements include those of the Company and its subsidiary, Mersana Securities Corp., which was established in December 2016. All intercompany balances and transactions have been eliminated.

Use of estimates

The preparation of the Company's consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, equity, revenue, expenses and related disclosure of contingent assets and liabilities at the date of the financial statements and reported amounts of revenue and expenses during the reporting period. On an ongoing basis, the Company's management evaluates its estimates, which include, but are not limited to management's judgments with respect to the separate units of accounting and best estimate of selling price of those units of accounting within its revenue arrangements, accrued expenses, valuation of stock-based awards and income taxes. Actual results could differ from those estimates.

The Company utilized significant estimates and assumptions in determining the fair value of its common stock prior to the Company's IPO. The Company has utilized various valuation methodologies in accordance with the framework of the American Institute of Certified Public Accountants Technical Practice Aid, *Valuation of Privately-Held Company Equity Securities Issued as Compensation*, the Practice Aid, to estimate the fair value of its common stock. Each valuation methodology includes estimates and assumptions that require the Company's judgment. These estimates and assumptions include a number of objective and subjective factors, including external market conditions, the prices at which the Company sold shares of preferred stock, the superior rights and preferences of securities senior to the Company's common stock at the time of, and the likelihood of, achieving a liquidity event, such as an initial public offering or sale. Significant changes to the key assumptions used in the valuations could result in different fair values of common stock at each valuation date.

Segment information

Operating segments are defined as components of an enterprise about which separate discrete information is available for evaluation by the chief operating decision-maker in deciding how to allocate resources and assess performance. The Company and the Company's chief operating decision-maker, the Company's chief executive officer, view the Company's operations and manage its business as a single operating segment, which is the business of discovering and developing ADC's.

Research and development

The Company expenses all costs incurred in performing research and development activities. Research and development expenses include salaries and benefits, materials and supplies, preclinical expenses, manufacturing expenses, stock-based compensation expense, depreciation of equipment, contract services and other outside expenses. Costs of certain development activities, such as manufacturing, are recognized based on an evaluation of the progress to completion of specific tasks. Payments for these activities are based on the terms of the individual arrangements, which may differ from the pattern of costs incurred, and are reflected in the financial statements as prepaid or accrued research and development costs. Nonrefundable advance payments for goods or services to be received in the future for use in research and development activities are deferred and capitalized. The capitalized amounts are expensed as the related goods are delivered or the services are performed. Costs associated with collaboration agreements are included in research and development expense.

Revenue recognition

The Company recognizes revenue from collaboration arrangements in accordance with FASB ASC Topic 605, *Revenue Recognition* (ASC 605). Accordingly, revenue is recognized when all of the following criteria are met:

- Persuasive evidence of an arrangement exists;
- Delivery has occurred or services have been rendered;
- The seller's price to the buyer is fixed or determinable; and
- Collectibility is reasonably assured.

Amounts received prior to satisfying the revenue recognition criteria are recorded as deferred revenue in the consolidated balance sheets. Amounts expected to be recognized as revenue within the 12 months following the balance sheet date are classified as current liabilities. Amounts not expected to be recognized as revenue within the 12 months following the balance sheet date are classified as deferred revenue, net of current portion.

Multiple element arrangements

The Company analyzes its strategic partnerships that include multiple element arrangements based on the guidance in FASB ASC Topic 605-25, *Revenue Recognition—Multiple Element Arrangements*, or ASC 605-25.

Pursuant to the guidance in ASC 605-25, the Company evaluates multiple element arrangements to determine i) the deliverables included in the arrangement and ii) whether the individual deliverables represent separate units of accounting or whether they must be accounted for as a combined unit of accounting. This evaluation requires subjective determinations and requires management to make judgments about the individual deliverables and whether such deliverables are separable from the other aspects of the contractual relationship. Deliverables are considered separate units of accounting provided that: (i) the delivered item(s) has value to the customer on a standalone basis and (ii) if the arrangement includes a general right of return relative to the delivered item(s), delivery or performance of the undelivered item(s) is considered probable and substantially in the Company's control. In assessing whether an item has standalone value, the Company considers factors such as the research, manufacturing and commercialization capabilities of the collaboration partner and the availability of the associated expertise in the general marketplace. In addition, the Company considers whether the collaboration partner can use the deliverable(s) for their intended purpose without the receipt of the remaining element(s), whether the value of the deliverable is dependent on the undelivered item(s) and whether there are other vendors that can provide the undelivered element(s).

Options are considered substantive if, at the inception of the arrangement, the Company is at risk as to whether the collaboration partner will choose to exercise the option. Factors that the Company considers in evaluating whether an option is substantive include the cost to exercise the option, the overall objective of the arrangement, the benefit the collaborator might obtain from the arrangement without exercising the option and the likelihood the option will be exercised. When an option is considered substantive, the Company does not consider the option or item underlying the option to be a deliverable at the inception of the arrangement and the associated option fees are not included in the allocable consideration, assuming the option is not priced at a significant and incremental discount. Conversely, when an

option is not considered substantive, the Company would consider the option including other deliverables contingent upon the exercise of the option, to be a deliverable at the inception of the arrangement and a corresponding amount would be included in the allocable arrangement consideration. Notwithstanding whether the option is considered substantive or non-substantive, if the price of the option includes a significant incremental discount, the discount would be included as a deliverable at the inception of the arrangement.

Allocation of arrangement consideration

Arrangement consideration that is fixed or determinable is allocated among the separate units of accounting using the relative selling price method. Then, the applicable revenue recognition criteria in ASC 605-25 are applied to each of the separate units of accounting in determining the appropriate period and pattern of recognition. The Company determines the selling price of a unit of accounting following the hierarchy of evidence prescribed by ASC 605-25. Accordingly, the Company determines the estimated selling price for units of accounting within each arrangement using vendor-specific objective evidence (VSOE) of selling price, if available, third-party evidence (TPE) of selling price if VSOE is not available, or best estimate of selling price (BESP) if neither VSOE nor TPE is available. The Company typically uses BESP to estimate the selling price, since it generally does not have VSOE or TPE of selling price for its units of accounting. Determining the BESP for a unit of accounting requires significant judgment. In developing the BESP for a unit of accounting, the Company considers applicable market conditions and relevant entity-specific factors, including factors that were contemplated in negotiating the agreement with the customer and estimated costs. The Company validates the BESP for units of accounting by evaluating whether changes in the key assumptions used to determine the BESP will have a significant effect on the allocation of arrangement consideration between multiple units of accounting.

Pattern of recognition

The Company recognizes arrangement consideration allocated to each unit of accounting when all of the revenue recognition criteria in ASC 605 are satisfied for that particular unit of accounting. Deliverables under collaboration agreements generally consist of licenses and research and development services. License revenue is recognized when the license is delivered when it is determined to have standalone value from the undelivered elements of the arrangement. If the license does not have standalone value, the amounts allocated to the license will be combined with the related undelivered items as a single unit of accounting. The revenue recognition of a combined unit of accounting typically follows the pattern of revenue of the last delivered item in the combined accounting unit.

The Company recognizes the amounts associated with research and development services and other service related deliverables over the associated period of performance. If there is no discernable pattern of performance or objectively measurable performance measures do not exist, then the Company recognizes revenue under the arrangement on a straight-line basis over the period the Company is expected to complete its performance obligations. Conversely, if the pattern of performance in which the service is provided to the customer can be determined and objectively measurable performance exists, then the Company recognizes revenue under the arrangement using the proportional performance method.

The Company recognizes revenue associated with license options upon exercise of the option, if the underlying license has standalone value from the other deliverables to be provided subsequent to delivery of the license. If the license does not have standalone value, the amounts allocated to the license option will be combined with the related undelivered items as a single unit of accounting.

Revenue recognized is limited to the lesser of the cumulative amount of payments received or the cumulative revenue earned determined using the straight-line method or proportional performance, as applicable, as of the period end date.

Recognition of milestones and royalties

At the inception of each arrangement that includes milestone payments, the Company evaluates whether each milestone is substantive and at-risk. This evaluation includes an assessment of whether (a) the consideration is commensurate with either (1) the entity's performance to achieve the milestone, or (2) the enhancement of the value of the delivered item(s) as a result of a specific outcome resulting at least in part from the entity's performance to achieve the milestone, (b) the consideration relates solely to past performance, and (c) the consideration is reasonable relative to all of the deliverables and payment terms within the arrangement. The Company evaluates factors such as the scientific, regulatory, commercial, and other risks that must be overcome to achieve the respective milestone, the level of effort and investment

required to achieve the respective milestone, and whether the milestone consideration is reasonable relative to all deliverables and payment terms in the arrangement in making this assessment. On the milestone achievement date, assuming all other revenue recognition criteria are met and the milestone is deemed substantive and at-risk, the Company recognizes the payment as collaboration revenue. For milestones that are not deemed substantive and at-risk, where payment is reasonably assured, the Company recognizes the milestone payment over the remaining service period.

The Company will recognize royalty revenue, if any, in the period of sale of the related product(s), based on the underlying contract terms, provided that the reported sales are reliably measurable and the Company has no remaining performance obligations, assuming all other revenue recognition criteria are met.

Collaborative arrangements

The Company records the elements of its collaboration agreements that represent joint operating activities in accordance with ASC Topic 808, *Collaborative Arrangements* (ASC 808). Accordingly, the elements of the collaboration agreements that represent activities in which both parties are active participants and to which both parties are exposed to the significant risks and rewards that are dependent on the commercial success of the activities, are recorded as collaborative arrangements. The Company considers the guidance in ASC Topic 605-45, *Revenue Recognition—Principal Agent Considerations* (ASC 605-45) in determining the appropriate treatment for the transactions between the Company and its collaborative partner and the transactions between the Company and third parties. Generally, the classification of transactions under the collaborative arrangements is determined based on the nature and contractual terms of the arrangement along with the nature of the operations of the participants. To the extent revenue is generated from a collaboration, the Company will recognize its share of the net sales on a gross basis if it is deemed to be the principal in the transactions with customers, or on a net basis if it is instead deemed to be the agent in the transactions with customers, consistent with the guidance in ASC 605-45.

Fair value measurements

Fair value is defined as the price that would be received upon sale of an asset or paid to transfer a liability between market participants at measurement dates. ASC Topic 820 *Fair Value Measurement* (ASC 820), establishes a three-level valuation hierarchy for instruments measured at fair value. The hierarchy is based on the transparency of inputs to the valuation of an asset or liability as of the measurement date. The three levels are defined as follows:

Level 1—Inputs to the valuation methodology are quoted prices (unadjusted) for identical assets or liabilities in active markets.

Level 2—Inputs to the valuation methodology include quoted prices for similar assets and liabilities in active markets, and inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the financial instrument.

Level 3—Inputs to the valuation methodology are unobservable and significant to the fair value measurement.

Cash and cash equivalents

The Company considers all highly liquid investments with an original maturity, or a remaining maturity at the time of purchase, of three months or less to be cash equivalents. The Company invests excess cash primarily in money market funds, commercial paper and government agency securities, which are highly liquid and have strong credit ratings. These investments are subject to minimal credit and market risks. Cash and cash equivalents are stated at cost, which approximates market value.

Marketable securities

Short-term marketable securities consist of investments with maturities greater than three months and less than one year from the balance sheet date. Long-term marketable securities consist of investments with maturities greater than one year that are not expected to be used to fund current operations. The Company classifies all of its marketable securities as available-for-sale. Accordingly, these investments are recorded at fair value. Amortization and accretion of discounts and premiums are recorded as interest income within other income. Unrealized gains and losses on available-for-sale securities are included in other comprehensive loss as a component of stockholders' equity (deficit) until realized.

Restricted cash

Restricted cash of $371 is recorded in other non-current assets as of September 30, 2017 and December 31, 2016 and includes amounts held as security deposits for a standby letter of credit related to a facility lease and a corporate credit card program.

Accounting for stock-based compensation

The Company accounts for its stock-based compensation in accordance with ASC Topic 718 Compensation—*Stock Compensation* (ASC 718). ASC 718 requires all stock-based payments to employees and directors to be recognized as expense in the statements of operations based on their grant date fair values. Expense related to stock awards to non-employees is required to be recognized in the statement of operations based on the awards' vesting date fair values. The Company estimates the fair value of options granted using the Black-Scholes option pricing model.

The Black-Scholes option pricing model requires inputs based on certain subjective assumptions, including (a) the expected stock price volatility, (b) the calculation of expected term of the award, (c) the risk-free interest rate and (d) expected dividends. Due to the lack of a public market for the Company's common stock prior to completion of the IPO and a lack of company-specific historical and implied volatility data, the Company has based its estimate of expected volatility on the historical volatility of a group of similar companies that are publicly traded. The historical volatility is calculated based on a period of time commensurate with the expected term assumption. The computation of expected volatility is based on the historical volatility of a representative group of companies with similar characteristics to the Company, including stage of product development and life science industry focus. The Company uses the simplified method as prescribed by the SEC Staff Accounting Bulletin No. 107, *Share-Based Payment*, to calculate the expected term for options granted to employees as it does not have sufficient historical exercise data to provide a reasonable basis upon which to estimate the expected term. For options granted to non-employees, the Company utilizes the contractual term of the arrangement as the basis for the expected term assumption. The risk-free interest rate is based on a treasury instrument whose term is consistent with the expected term of the stock options. The expected dividend yield is assumed to be zero as the Company has never paid dividends and has no current plans to do so.

There were significant judgments and estimates inherent in the determination of the fair value of our common stock prior to the closing of the IPO. These estimates and assumptions include a number of objective and subjective factors, including external market conditions, the prices at which the Company sold shares of preferred stock, the superior rights and preferences of securities senior to its common stock at the time of, and the likelihood of, achieving a liquidity event, such as an IPO or sale.

Through December 31, 2016, the Company was required to estimate forfeitures at the time of grant, and revise those estimates in subsequent periods if actual forfeitures differ from its estimates. The Company used historical data to estimate post-vesting forfeitures and recorded stock-based compensation expense only for those awards that were expected to vest. To the extent that actual forfeitures differ from estimates, the difference was recorded as a cumulative adjustment in the period the estimates were revised. Stock-based compensation expense recognized in the financial statements is based on awards that were ultimately expected to vest. The fair value of stock-based payments was recognized as expense, net of estimated forfeitures, over the requisite service period which is generally the vesting period.

In the first quarter of 2017, the Company made an accounting policy election to recognize forfeitures as they occur upon adoption of guidance per ASU No. 2016-09. The adoption of this ASU did not have a material impact on the Company's financial statements. In reporting periods prior to 2017, the Company estimated forfeitures at the time of grant and revised in subsequent periods as necessary if actual forfeitures differed from estimates.

Net loss per share

Basic net loss per common share is calculated by dividing the net loss attributable to common stockholders by the weighted-average number of common shares outstanding during the period, without consideration for potentially dilutive securities. Diluted net loss per share is computed by dividing the net loss attributable to common stockholders by the weighted-average number of common shares and potentially dilutive securities outstanding for the period determined using the treasury stock and if-converted methods.

For purposes of the diluted net loss per share calculation, convertible preferred stock, warrants to purchase common stock and options to purchase common stock are considered to be potentially dilutive securities, but are excluded from the calculation of diluted net loss per share because their effect would be anti-dilutive and therefore, basic and diluted net loss per share were the same for all periods presented.

The following table sets forth the outstanding potentially dilutive securities that have been excluded from the calculation of diluted net loss per share because to include them would be anti-dilutive (in common stock equivalent shares):

	Three months ended		Nine months ended	
	September 30, 2017	September 30, 2016	September 30, 2017	September 30, 2016
Series A-1 convertible preferred stock	—	5,574,467	—	5,574,467
Series B-1 convertible preferred stock	—	7,319,307	—	7,319,307
Series C-1 convertible preferred stock	—	3,260,897	—	3,260,897
Warrants	129,491	129,491	129,491	129,491
Stock options	3,205,714	2,827,280	3,205,714	2,827,280
	3,335,205	19,111,442	3,335,205	19,111,442

Recently issued accounting pronouncements

In May 2014, the Financial Accounting Standards Board (FASB) issued a new standard, ASU No. 2014-09, *Revenue from Contracts with Customers* (ASU No. 2014-09), as amended, which will supersede nearly all existing revenue recognition guidance. Under ASU No. 2014-09, an entity is required to recognize revenue upon transfer of promised goods or services to customers in an amount that reflects the expected consideration received in exchange for those goods or services. ASU No. 2014-09 defines a five-step process in order to achieve this core principle, which may require the use of judgment and estimates, and also requires expanded qualitative and quantitative disclosures relating to the nature, amount, timing and uncertainty of revenue and cash flows arising from contracts with customers, including significant judgments and estimates used.

The FASB has issued several amendments to the new standard, including clarification on accounting for licenses of intellectual property and identifying performance obligations. The amendments include ASU No. 2016-08, *Revenue from Contracts with Customers (Topic 606)—Principal versus Agent Considerations*, which was issued in March 2016, and clarifies the implementation guidance for principal versus agent considerations in ASU No. 2014-09, and ASU No. 2016-10, *Revenue from Contracts with Customers (Topic 606)—Identifying Performance Obligations and Licensing*, which was issued in April 2016, and amends the guidance in ASU No. 2014-09 related to identifying performance obligations and accounting for licenses of intellectual property.

The new standard permits adoption either by using (i) a full retrospective approach for all periods presented in the period of adoption or (ii) a modified retrospective approach with the cumulative effect of initially applying the new standard recognized at the date of initial application and providing certain additional disclosures. The new standard is effective for annual reporting periods beginning after December 15, 2017. The Company plans to adopt the new standard effective January 1, 2018 using the modified retrospective approach.

The Company is in process of implementing its overall adoption plan and evaluating the impact of the new standard on its accounting policies. The Company has assigned internal resources and engaged third-party service providers to assist in the implementation. While the Company continues to assess the standard, it is expected that it may have a material impact on the revenue recognition for the Company's current arrangements with Takeda Pharmaceutical Company Limited (Takeda) and Merck KGaA.

In February 2016, the FASB issued ASU No. 2016-02, *Leases* (ASU No. 2016-02), which will replace the existing guidance in ASC 840, Leases. The updated standard aims to increase transparency and comparability among organizations by requiring lessees to recognize lease assets and lease liabilities on the balance sheet and requiring disclosure of key information about leasing arrangements. This amendment is effective for the Company in the fiscal year beginning after December 15, 2019, but early adoption is permissible. The Company is currently evaluating the potential impact that ASU No. 2016-02 may have on its financial position and results of operations.

In March 2016, the FASB issued ASU No. 2016-09, *Compensation—Stock Compensation* (ASU No. 2016-09), which amends ASC Topic 718, Compensation—Stock Compensation. The new standard identifies areas for simplification

involving several aspects of accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, an option to recognize gross stock compensation expense with actual forfeitures recognized as they occur, as well as certain classifications on the consolidated statements of cash flows. The amendments are effective for annual reporting periods (including interim reporting periods within those years) beginning after December 15, 2016. The Company adopted this ASU effective January 1, 2017. The adoption of this ASU did not have a material impact on the Company's financial statements. Upon adoption of ASU No. 2016-09, the Company accounts for forfeitures as they occur.

In August 2016, the FASB issued ASU 2016-15, *Statement of Cash Flows: Classification of Certain Cash Receipts and Cash Payments*. The new standard clarifies certain aspects of the statement of cash flows, including the classification of contingent consideration payments made after a business combination and several other clarifications not currently applicable to the Company. The new standard also clarifies that an entity should determine each separately identifiable source or use within the cash receipts and cash payments on the basis of the nature of the underlying cash flows. In situations in which cash receipts and payments have aspects of more than one class of cash flows and cannot be separated by source or use, the appropriate classification should depend on the activity that is likely to be the predominant source or use of cash flows for the item. The new standard will be effective for the Company on January 1, 2018. The adoption of this standard is not expected to have a material impact on the Company’s consolidated statement of cash flows upon adoption.

In November 2016, the FASB issued ASU 2016-18, *Statement of Cash Flows: Restricted Cash* (ASU 2016-18). The amendments in this update require that amounts generally described as restricted cash and restricted cash equivalents be included within cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. ASU 2016-18 will be effective January 1, 2018, with early adoption permitted. The Company expects the adoption to impact its consolidated statement of cash flows as, upon adoption, it will include the Company’s restricted cash balance in the cash and cash equivalents reconciliation of operating, investing and financing activities.

3. Collaboration agreements

Takeda strategic research and development partnership

In March 2014, the Company entered into a Research Collaboration and Commercial License Agreement with Takeda through its wholly owned subsidiary, Millennium Pharmaceuticals, Inc. (the 2014 Agreement). The 2014 Agreement was amended in January 2015 (the 2015 Amended Agreement) and amended and restated in January 2016 (the 2016 Restated Agreement). The agreements provide Takeda with the right to develop ADCs directed to a total of seven exclusive targets over a specified period of time. Takeda will be responsible for the product development and marketing of any products resulting from this collaboration.

The 2014 Agreement was structured to allow Takeda the right to evaluate two targets upon payment of a per target technology access fee with the right to receive a development and commercialization license upon the exercise of an option with an additional payment to the Company. The 2014 Agreement also provided a limited replacement right for a target. The 2015 Amended Agreement granted Takeda the right to develop two additional targets and also gave Takeda an additional limited replacement right. The 2016 Restated Agreement provided Takeda with the right to develop three additional targets.

Under the terms of the 2014 Agreement, the Company was eligible to receive a nonrefundable technology access fee of $500 per target, payable upon designation of the target, and an option exercise fee of $1,300 per target to receive a development and commercialization license. The Company received an upfront payment of $1,150 representing the $500 technology access fee for the first designated target and a $650 nonrefundable payment creditable against the $1,300 option exercise payment for the development and commercialization license for the first designated target. In 2014, the Company also received the remaining $650 option exercise fee for the first designated target and the $500 technology access fee for the second designated target.

In connection with the 2015 Amended Agreement, the Company received a nonrefundable payment of $9,000 for the right to develop two additional targets. Takeda is required to pay $500 in order to utilize the second limited replacement

right. Under the terms of the 2016 Restated Agreement, the Company received a nonrefundable payment of $13,500 for the right to develop three additional targets, bringing the total to seven.

For all targets under the 2015 Amended Agreement and the 2016 Restated Agreement, the Company grants a research, development and commercialization license upon the designation of a target, including targets initially covered by the 2015 Amended Agreement.

Through September 30, 2017 Takeda has designated four targets and received development and commercialization licenses for the first, third and fourth designated targets. In order to receive a development and commercialization license for the second designated target, Takeda must exercise its option and make a payment of $1,300. Takeda still has three targets and the limited replacement rights for two targets available.

Under the terms of the agreements, the Company and Takeda develop research plans to evaluate Takeda's antibodies as ADCs incorporating the Company's technology. The Company receives reimbursement for its efforts under the research plans. The goal of the research plans is to provide Takeda with sufficient information to formally nominate a development candidate and begin Investigational New Drug Application, or IND, enabling studies or cease development on the designated target.

If products are successfully developed and commercialized, the Company is entitled to receive aggregate milestones of up to $1,063,300 for all seven designated targets consisting of $107,800 in development milestones, $325,000 in regulatory milestones, and $630,500 in commercial milestones. The total milestones payable on each of the first and second designated targets are $136,000 and the total milestones payable on each of the third, fourth, fifth, sixth and seventh designated target are $158,300. There are four individual development milestones per target, which are payable upon either the initiation of a GLP toxicology study or the filing of an IND application (depending upon the designated target), and the initiation of Phase 1 through Phase 3 clinical trials. There are six or eight individual regulatory milestones per target, depending on the target. These are payable upon regulatory submissions, regulatory approvals and pricing approvals, as applicable, for the U.S., European Union and Japanese markets and regulatory approvals for both a second and third indication. There are six individual commercial milestones, which are payable upon the first commercial sale in each of the U.S., European Union and Japanese markets and upon the attainment of three separate defined thresholds for annual net sales. The next potential milestone payment the Company will be eligible to receive is either a development milestone of $500 related to a GLP toxicology study or a development milestone of $750 related to the filing of an IND, depending upon the designated target. The Company is also entitled to receive royalties on product sales, if any, during the applicable royalty term. Royalties payable on the first and second designated targets are in the mid single digits and royalties payable on the third, fourth, fifth, sixth and seventh designated target are in the mid to high single digits.

In connection with the 2016 Restated Agreement, the Company may elect to exercise an option to co-develop and co-commercialize one product incorporating either Takeda's third, fourth, fifth, sixth or seventh target in the United States for a payment of $15,000. If the Company elects to exercise the option to co-develop and co-commercialize a product, the Company will share in 50% of the profits related to United States. The Company will be responsible for 50% of costs incurred specifically for the United States and 30% of global development costs. Any costs incurred specifically for a foreign country will be borne 100% by Takeda. If the Company elects to co-develop and co-commercialize a product, certain regulatory milestones and royalties related to the United States for that target would not be paid by Takeda.

Unless earlier terminated, the 2016 Restated Agreement will expire upon the expiration of the last royalty term for a product under the agreement, after which time, Takeda will have a perpetual, royalty-free license. Except with respect to the target antigen of a product for which the Company exercised its option to co-develop and co-commercialize in the United States, Takeda may terminate the 2016 Restated Agreement in its entirety or with respect to any target for convenience upon 45 days' prior written notice. Each party may terminate the 2016 Restated Agreement in its entirety upon bankruptcy or similar proceedings of the other party or upon an uncured material breach of the agreement by the other party. However, if such breach only relates to one target, the agreement may only be terminated with respect to such target.

Takeda XMT-1522 strategic partnership

In January 2016, the Company entered into a Development Collaboration and Commercial license Agreement with Takeda through its wholly owned subsidiary, Millennium Pharmaceuticals, Inc. for the development and

commercialization of XMT-1522 (the XMT-1522 Agreement). Under the XMT-1522 Agreement, Takeda was granted the exclusive right to commercialize XMT-1522 outside of the United States and Canada. Under the XMT-1522 Agreement, the Company is responsible for conducting certain Phase 1 development activities for XMT-1522, including the ongoing Phase 1 clinical study, at its own expense. Takeda has the option to conduct Phase 1 development activities at its own expense within its territory. The parties will collaborate on the further development of XMT-1522 in accordance with a global development plan (Post-Phase 1 Development). The parties will share equally all clinical stage manufacturing costs and any Post-Phase 1 Development costs incurred in the performance of activities for the purpose of obtaining regulatory approval in either the United States or Canada and in certain major markets in the rest of the world. Each party will be responsible for all Post-Phase 1 Development costs incurred in the performance of activities solely for the purpose of obtaining regulatory approval in such party's territory. Each party may conduct independent development of XMT-1522, subject to certain restrictions.

The Company received an upfront payment of $26,500 upon execution of the XMT-1522 Agreement. In addition, the Company was entitled to a milestone payment of $20,000 upon achievement of the IND Clearance Date. The Company achieved the IND Clearance Date in October 2016. Accordingly, the right to credit a portion of the upfront payment lapsed and the Company received the $20,000 milestone payment in October 2016.

In addition to the milestone payment upon achievement of the IND Clearance Date, the Company is entitled to receive future development, regulatory and commercial milestones of up to $288,000 consisting of $87,000 of development milestones, $128,000 of regulatory milestones and $73,000 of commercial milestones, as well as royalties in the low to mid teens on net sales of XMT-1522 in Takeda's territory during the applicable royalty term. There are development milestones payable upon the achievement of nine separate events: the initiation of Phase 2 clinical trials and Phase 3 clinical trials for four separate specified patient populations and the initiation of a Phase 3 clinical trial for one additional unspecified patient population. There are 14 regulatory milestones, which are payable upon regulatory submissions, regulatory approvals and pricing approvals, as applicable, for the U.S., European Union and Japanese markets for up to four separate patient populations and multiple label indications. In addition, a regulatory milestone is payable upon the receipt of regulatory and pricing approval in two specified markets other than the United States, the European Union or Japan. There are three individual commercial milestones, which are payable upon the attainment of certain thresholds for annual net sales. The next potential milestone the Company will be eligible to receive is a development milestone of $12,000 related to the initiation of a Phase 2 clinical trial.

Under the XMT-1522 Agreement, Takeda committed to make equity investments in the Company of up to $20,000 in the aggregate in either a qualified private financing or in connection with the Company's IPO at the same price paid by the investors in the qualified private financing or the price per share in the IPO. Takeda invested approximately $10,000 in the Company's Series C-1 financing in June 2016 and invested the remaining $10,000 in the Company's IPO.

The XMT-1522 Agreement expires upon the expiration of the royalty term for XMT-1522, after which time, Takeda will have a perpetual, royalty-free license. However, Takeda may terminate the XMT-1522 Agreement in its entirety for convenience upon 30 days' prior written notice at any time up to the initiation of the first Phase 2 clinical study of XMT-1522 or upon 90 days' prior written notice following the initiation of the first Phase 2 clinical study of XMT-1522. Each party may terminate the XMT-1522 Agreement in its entirety upon bankruptcy or similar proceedings of the other party and in its entirety or on a country-by-country basis upon an uncured material breach of the agreement by the other party. Following termination, XMT-1522 will revert to the Company for further development and commercialization.

Accounting analysis

In accordance with ASC 605-25, the Company identified the deliverables under the 2014 Agreement. The deliverables were determined to be (i) research license for the first designated target, (ii) exclusive development and commercialization license for the first designated target, (iii) research and development services under the research plan associated with the first designated target, (iv) replacement right for a designated target, (v) rights to future technological improvements, and (vi) providing joint research committee services. The Company determined that the option to obtain an exclusive development and commercialization license for the first designated target was not a substantive option for accounting purposes, primarily because Takeda had made an upfront nonrefundable payment of 50% of the option exercise fee. As a result, the exclusive development and commercialization license was considered a deliverable at the inception of the arrangement. In addition, the total option exercise fee of $1,300 related to the first designated target was included in the allocable consideration. Similarly, the Company concluded the option to replace a designated target was not a substantive option as there were no additional payments required in connection with the first replacement option.

Conversely, the Company concluded that Takeda's ability to designate a second designated target was a substantive option as the designation of an additional target was at Takeda's option and was not required to pursue the development of the first designated target. The Company has determined that the research license for the first designated target and the research and development services under the research plan associated with the first designated target should be combined into one unit of accounting (the research license and related service) as the research license does not have standalone value from the research services as the research services are required for Takeda to obtain the benefit of the research license. The Company has concluded the research license and related services have standalone value from the other units of accounting. The exclusive commercial license, replacement right for a designated target, rights to future technological improvements and joint research committee services are not required for Takeda to realize the value of the initial research license and related services.

Under the terms of the 2014 Agreement, the total arrangement consideration of $4,500 (which comprises the $500 upfront technology access payment, expected fees of $2,700 for the research services and $1,300 for the option exercise fee for the first designated target) was allocated to the units of accounting based on management's BESP. The Company determined the BESP for the research license and related research services based on the estimated selling price of a research license and an estimate of the overall effort to perform the research services and an estimated market rate for research services. In developing the BESP for the exclusive development and commercialization license, the replacement rights for a designated target and the future technological improvements, the Company considered other comparable transactions, the selling price for a research license and the probability that the future technology will be developed and utilized. The BESP for the joint research committee services was developed using an estimate of the time and costs incurred to participate in the committees. The Company applied the relative selling price allocation using these BESP, which resulted in the consideration being allocated as follows: $2,790 to the research license and related service for the first designated target, $1,125 related to the commercial license on the first designated target, $450 to the replacement right for a designated target, $45 to rights to future technological improvements and $90 to joint research committee services. In addition, Takeda paid $500 in 2014 for the technology access fee and research license associated with the second designated target.

In connection with the 2015 Amended Agreement, the Company reassessed the units of accounting from the 2014 Agreement and identified incremental deliverables, resulting in the following units of accounting at the time of the 2015 Amended Agreement (i) exclusive license to the first designated target and related research services, (ii) research license to the second designated target and related research services, (iii) research license to the third designated target and related services, (iv) research license to the fourth designated target and related services, (v) replacement right to the first or second designated target, (vi) discount on the option for an exclusive development and commercialization license for the second designated target, (vii) option for exclusive development and commercialization license for the third designated target, (viii) option for an exclusive development and commercialization license for the fourth designated target, (ix) rights to future technological improvements and (x) joint research committee services. The Company concluded that the option for the exclusive development and commercialization license for the second designated target includes a significant incremental discount as the option exercise fee was at a discount to the then-current estimated selling price of an exclusive development and commercialization license for a designated target. The Company concluded the options to obtain exclusive development and commercialization licenses for the third and fourth designated targets were not substantive options as there were no additional payments required to exercise those options. Consistent with the assessment of the units of accounting under the 2014 Agreement, the research licenses (and the exclusive commercial license as it relates to the first designated target) have been combined with the related research services under the related research plan as the license does not have standalone value from the related research services. Upon execution of the 2015 Amended Agreement the total arrangement consideration of $16,697 (which comprises the $9,000 upfront payment, expected fees of $5,776 for the research services and $1,921 of remaining deferred revenue related to the initial 2014 Agreement) was allocated to the units of accounting based on management's BESP, which were developed using consistent methodologies to the 2014 Agreement, as follows: $4,308 to the exclusive development and commercialization license to the first designated target and related research services, $1,611 to each of the research licenses and related research services for the second, third and fourth designated targets, $388 to the replacement right on the first or second designated target, $524 to the discount on the exclusive license to the second designated target, $3,105 to each of the exclusive development and commercialization licenses on the third and fourth designated targets, $262 to rights to future technological improvements and $174 to joint research committee services.

The Company has concluded that the 2016 Restated Agreement and the XMT-1522 Agreement should be accounted for as one arrangement due in part because the agreements are with the same party and were negotiated and executed contemporaneously. The Company reassessed the accounting units from the 2015 Amended Agreement and identified

the additional deliverables and units of accounting. As such, the Company identified the units of accounting: (i) exclusive development and commercialization license to the first designated target and related research services, (ii) research license to the second designated target and related research services, (iii) discount on the exclusive development and commercialization license to the second designated target, (iv) exclusive development and commercialization license to the third designated target and related research services, (v) exclusive development and commercialization license to the fourth designated target and related research services, (vi) exclusive development and commercialization license to the fifth designated target and related research services, (vii) exclusive development and commercialization license to the sixth designated target and related research services, (viii) exclusive development and commercialization license to the seventh designated target and related research services, (ix) first replacement right for a designated target, (x) discount on the second replacement right to a designated target, (xi) rights to future technological improvements, (xii) joint research committee services, (xiii) XMT-1522 license and related services, and (xiv) joint research committee services for XMT-1522.

Consistent with the assessment under the prior Takeda agreements, the Company has concluded that the license does not have standalone value from the research services and has accounted for each exclusive license and the related research services as a combined unit of accounting.

In addition, in assessing the additional accounting units under the XMT-1522 Agreement, the Company concluded that the license to the Company's intellectual property and the related obligations to perform services, including Phase 1 development and transfer certain materials and know how related to the Company's manufacturing processes should be a combined unit of accounting. The license to the Company's intellectual property does not have standalone value from the services that the Company is obligated to perform. Takeda would not have the ability to realize the value of the license without the Company performing the related services.

The Company has concluded that the Post-Phase 1 Development activities under the XMT-1522 Agreement represent joint operating activities in which both parties are active participants and of which both parties are exposed to significant risks and rewards that are dependent on the commercial success of the activities. Accordingly, the Company is accounting for the Post-Phase 1 Development activities in accordance with ASC No. 808, *Collaborative Arrangements* (ASC 808) and they are not considered revenue elements under ASC 605-25. For the three months ended September 30, 2017 and 2016 and the nine months ended September 30, 2017 and 2016, the Company was billed approximately $924, $196, $1,719 and $353, respectively, from Takeda representing the Company's share of Post-Phase 1 Development costs incurred by Takeda. These amounts have been reflected as research and development costs in the consolidated statement of operations for the three months ended September 30, 2017 and 2016 and the nine months ended September 30, 2017 and 2016. The Company did not perform any Post-Phase 1 Development activities or incur any associated costs during the three months ended September 30, 2017 and 2016 or the nine months ended September 30, 2017 and 2016.

The total allocable arrangement consideration for the 2016 Restated Agreement and the XMT-1522 Agreement was $50,089 comprised of the following: (i) nonrefundable upfront payment—$13,500, (ii) expected fees for the remaining research services—$9,515, (iii) remaining deferred revenue from the 2015 Amended Agreement—$7,498, (iv) non-creditable portion of the XMT-1522 upfront fee—$13,250, and (v) expected reimbursement for related services—$6,326. In the third quarter 2017, based on an assessment of the total costs to complete research services, the Company revised its estimate for (i) the expected fees for the remaining research services under the 2016 Restated Agreement to $4,160 and (ii) the expected reimbursement for the related services under the XMT-1522 Agreement to $7,740. The revised total allocable arrangement consideration for the 2016 Restated Agreement and the XMT-1522 Agreement is $46,148.

Additionally, the Company has received approximately $800 in additional license consideration and research plan extension fees through September 30, 2017 which has been included in total allocable arrangement consideration.

The Company excluded from the initial allocable consideration $13,250 of the upfront fee under the XMT-1522 Agreement as it was contingent on the Company achieving IND Clearance before January 30, 2017. Upon achievement of the IND Clearance, which occurred in October 2016, the contingent consideration was included in the allocable consideration and the Company recognized the cumulative revenue that would have been recognized if the contingent consideration was included in allocable consideration at the inception of the agreements.

The allocable arrangement consideration was allocated to the units of accounting based on the relative estimated selling prices of each unit of accounting. The Company utilized BESP for each accounting unit which was developed on a basis similar to the prior Takeda agreements. The BESP for units of accounting which include a license and research services, was developed using the estimated selling price of the license and an estimate of the overall effort to perform the research service and an estimated market rate for research services. The BESP for the discounts on exclusive license, replacement rights (or discounts thereon) and rights to future technological improvements were developed based on the estimated selling prices of a license, as well as considering the probability that additional technology would be made available or the probability the counterpart would utilize the technology or exercise the option. The BESP for the joint research committee services was developed using an estimate of the time and costs incurred to participate in the committees.

The total allocable consideration, as revised in the third quarter 2017 and including contingent fees received after achieving IND Clearance in October 2016, was allocated to each unit of accounting as follows (i) exclusive development and commercialization license to the first designated target and related research services—$4,502, (ii) research license to the second designated target and related research services—$1,362, (iii) discount on the exclusive development and commercialization license to the second designated target—$553, (iv) exclusive development and commercialization license to the third designated target and related research services—$4,546, (v) exclusive development and commercialization license to the fourth designated target and related research services—$4,975, (vi) exclusive development and commercialization license to the fifth designated target and related research services—$4,975, (vii) exclusive development and commercialization license to the sixth designated target and related research services—$4,975, (viii) exclusive development and commercialization license to the seventh designated target and related research services—$4,975, (ix) first replacement right for a designated target—$3,685, (x) discount on the second replacement right to a designated target—$3,276, (xi) rights to future technological improvements—$1,843, (xii) joint research committee services—$157, (xiii) XMT-1522 license and related services—$39,901, and (xiv) XMT-1522 joint research committee services—$472.

The Company will recognize revenue related to the combined units of accounting which include research licenses or an exclusive development and commercialization license (if the license option is exercised during the research term) and the related research services, over the estimated period of the research and development services using a proportional performance model. Revenue related to discounts on options will be recognized when the option is exercised, unless there are additional research services that the Company is required to perform related to the designated target or at the time the option right lapses. Revenue related to the replacement rights will be recognized over the research term of the replacement target once the replacement right is exercised or at the time the right lapses unused. Revenue related to future technological improvements and joint research committee services will be recognized ratably over the performance period, which is expected to be ten years and six years, respectively. The Company will reassess the estimated remaining term at each subsequent reporting period.

The Company has evaluated all of the development, regulatory and commercial milestones that may be received in connection with the Takeda agreements. In evaluating if a milestone is substantive, the Company assesses whether: (i) the consideration is commensurate with either the Company's performance to achieve the milestone or the enhancement of the value of the delivered item(s) as a result of a specific outcome resulting from the Company's performance to achieve the milestone, (ii) the consideration relates solely to past performance, and (iii) the consideration is reasonable relative to all of the deliverables and payment terms within the arrangement. With the exception of the $20,000 milestone payment due upon achievement of IND Clearance under the XMT-1522 Agreement, all development and regulatory milestones are considered substantive on the basis of the contingent nature of the milestone, specifically reviewing factors such as the scientific, clinical, regulatory, commercial and other risks that must be overcome to achieve the milestone as well as the level of effort and investment required. Accordingly, such amounts will be recognized as revenue in full in the period in which the associated milestone is achieved, assuming all other revenue recognition criteria have been met. The $20,000 milestone payment was not considered a substantive milestone as the payment was not considered commensurate with the Company's performance to achieve IND Clearance nor was the payment solely for past performance. The $20,000 milestone payment was in substance part of the overall consideration for the license and development services the Company is required to perform under the XMT-1522 Agreement. Upon achievement of the IND Clearance, which occurred in October 2016, the contingent consideration was included in the allocable consideration and the Company recognized the cumulative revenue that would have been recognized if the contingent consideration as included in allocable consideration at the inception of the agreement. All commercial milestones will be accounted for in the same manner as royalties and recorded as revenue upon achievement of the milestone, assuming all other revenue recognition criteria are met.

The Company will recognize royalty revenue in the period of sale of the related product(s), based on the underlying contract terms, provided that the reported sales are reliably measurable and the Company has no remaining performance obligations, assuming all other revenue recognition criteria are met.

For the three months ended September 30, 2017 and 2016 and the nine months ended September 30, 2017 and 2016, the Company recorded total revenue of $5,768, $2,422, $12,052 and $10,456, respectively, related to its efforts under the 2016 Restated Agreement and the XMT-1522 Agreement. Included in accounts receivable as of September 30, 2017 and December 31, 2016 was $484 and $542, respectively, related to the Takeda agreements. During the quarter ended September 30, 2017, the Company revised its estimates of the total costs to complete the research services under the Takeda agreements, which changed the total consideration to be received under the agreements and the amount of revenue recognized in the three months and nine months ended September 30, 2017. Approximately $4,028 of the Company's revenue from the Takeda agreements for the three months and nine months ended September 30, 2017 is a result of the Company's change in estimates. The change in estimates decreased net loss by $4,028 for the three months ended September 30, 2017, or $0.18 per common share.

As of September 30, 2017 and December 31, 2016, the Company had $43,578 and $52,066, respectively, of deferred revenue related to the Takeda agreements that will be recognized over the remaining performance period, of which amounts approximately $11,263 and $16,536, respectively, are classified as short-term.

Merck KGaA

In June 2014, the Company entered into a Collaboration and Commercial License Agreement with Merck KGaA. Upon the execution of the agreement, Merck KGaA paid the Company a nonrefundable technology access fee of $12,000 for the right to develop ADCs directed to six exclusive targets over a specified period of time. No additional fees are due when a target is designated and the commercial license to the target is granted. Merck KGaA will be responsible for the product development and marketing of any products resulting from this collaboration.

Under the terms of the agreement, the Company and Merck KGaA develop research plans to evaluate Merck KGaA's antibodies as ADCs incorporating the Company's technology. The Company receives reimbursement for its efforts under the research plans. The goal of the research plans is to provide Merck KGaA with sufficient information to formally nominate a development candidate and begin IND-enabling studies or cease development on the designated target.

In addition to the payments received for research and development activities performed on behalf of Merck KGaA, the Company is also eligible to receive up to a total of $780,000 in future milestones related to all targets under the agreement, plus low to mid single digit royalties on the commercial sales of any resulting products during the applicable royalty term. The total milestones are categorized as follows: development milestones—$84,000; regulatory milestones—$264,000; and sales milestones—$432,000. There are six individual development milestones per target, payable upon the completion of various activities from the delivery of ADCs meeting defined specifications, through the dosing in a Phase 3 clinical trial. There are five regulatory milestones, which are payable upon regulatory approvals for a first indication in each of the U.S., European Union and Japanese markets and regulatory approvals for both a second and a third indication in the United States. There are three individual commercial milestones, which are payable upon the attainment of certain defined thresholds for annual net sales. Through December 31, 2016, the Company received and recognized as revenue $2,000 related to development milestones under the agreement. During the three months ended September 30, 2017, the Company received and recognized as revenue $500 related to a development milestone under the agreement. At the time of the execution of the agreement, there was significant uncertainty as to whether the milestones would be achieved. In consideration of this, as well as the Company's expected involvement in the research, these milestones were deemed to be substantive. The next potential milestone payment the Company will be eligible to receive will be a development milestone of $500 for the delivery of ADCs meeting product specification for the next designated targets or Merck KGaA's designation of a preclinical development candidate for any target. Revenue will be recognized upon achievement of the milestone. The Company and Merck KGaA may also enter into a future supply agreement to provide clinical study material should Merck KGaA pursue clinical development of any candidates nominated under the agreement. Through September 30, 2017, Merck KGaA has designated six targets, all of which are still covered by research plans.

Unless earlier terminated, the agreement will expire upon the expiration of the last royalty term for a product under the agreement, after which time, Merck KGaA will have a perpetual, royalty-free license, or if Merck KGaA does not designate any ADC product candidates produced by the Company under the agreement as preclinical development

candidates, upon the expiration of the last to expire research program. Merck KGaA may terminate the agreement in its entirety or with respect to any target for convenience upon 60 days' prior written notice. Each party may terminate the Merck KGaA Agreement in its entirety upon bankruptcy or similar proceedings of the other party or upon an uncured material breach of the agreement by the other party. However, if such breach only relates to one target, the agreement may only be terminated with respect to such target.

In accordance with ASC 605-25, the Company identified all of the deliverables at the inception of the agreement. The deliverables were determined to be (a) commercial licenses for six designated targets, (b) research and development services for each research plan associated with a designated target, (c) rights to future technological improvements and (d) participation of project team leaders and providing joint research committee services. The commercial licenses and associated research services for each target were combined into a single unit of accounting as the research licenses do not have stand alone value without the research services.

The Company determined the BESP for the commercial license and related research services based on the estimated selling price of a commercial license and an estimate of the overall effort to perform the research services and an estimated market rate for research services. In developing the BESP for the future technological improvements, the Company considered other comparable transactions, and the probability that the future technology will be developed and utilized. The BESP for the joint research committee services was developed using an estimate of the time and costs incurred to participate in the committees. The Company applied the relative selling price allocation using these BESPs.

The total arrangement consideration of $23,025 (which comprises the $12,000 upfront payment and expected fees of $11,025 for the research services) was allocated to the units of accounting based on management's best estimate of selling price as follows: $3,723 for each of the license and corresponding research and development services units of account; $437 for rights to future technological improvements; and $248 for joint research committee services. In the third quarter 2017, based on an assessment of the total costs to complete research services, the Company revised its estimate for the expected fees for the research services to $7,875 which changed the total arrangement consideration to $19,875. The Company allocated the revised arrangement consideration to the units of accounting based on management’s best estimate of selling price as follows: $6,428 for the first and second targets (combined); $3,214 for each of the other license and corresponding research and development services units of account; $376 for rights to future technological improvements; and $214 for joint research committee services.

The Company is recognizing revenue related to the commercial license and research and development services unit of accounting over the estimated period of the research and development services using a proportional performance model based on projected Company efforts. The estimated term is 36 months from the time the target is designated until Merck KGaA makes a decision whether to nominate a preclinical development candidate or cease development efforts with respect to the designated target. Revenue related to future technological improvements and joint research committee services will be recognized ratably over the performance period, which is expected to be ten years and six years, respectively. The Company is continuing to reassess the estimated remaining term at each subsequent reporting period.

During the three months ended September 30, 2017 and 2016 and the nine months ended September 30, 2017 and 2016, the Company recorded revenue of $499, $777, $2,107 and $2,656, respectively, related to its efforts under the collaboration agreement. Included in accounts receivable as of September 30, 2017 and December 31, 2016, respectively, was $51 and $509 related to the Merck KGaA Agreement.

As of September 30, 2017 and December 31, 2016 the Company had recorded $7,335 and $8,236 respectively, in deferred revenue related to the Merck KGaA agreement that will be recognized over the remaining performance period, of which amounts approximately $5,213 and $6,195, respectively, are classified as short-term.

Other Revenue

In 2016, the Company entered into an agreement to provide limited services for Asana BioSciences, an existing partner, for $250. For the three months ended September 30, 2017 and 2016 and the nine months ended September 30, 2017 and 2016, the Company recorded revenue of $0, $63, $125 and $63, respectively, related to these services.

4. Fair value measurements

The following table presents information about the Company's assets and liabilities regularly measured and carried at a fair value and indicates the level within fair value hierarchy of the valuation techniques utilized to determine such value as of September 30, 2017 and December 31, 2016:

	Fair Value	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
September 30, 2017				
Cash and cash equivalents	$ 50,756	$ 50,756	$ —	$ —
Marketable securities:				
U.S. Treasuries	41,783	41,783	—	—
Commercial paper	33,254	—	33,254	—
Corporate bonds	11,067	—	11,067	—
	$ 136,860	$ 92,539	$ 44,321	$ —

	Fair Value	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
December 31, 2016				
Cash and cash equivalents	$ 100,297	$ 100,297	$ —	$ —
	$ 100,297	$ 100,297	$ —	$ —

There were no changes in valuation techniques or transfers between fair value measurement levels during the nine months ended September 30, 2017 and 2016. As of September 30, 2017 and December 31, 2016, cash and cash equivalents were comprised of cash and money market funds.

5. Marketable securities

The following table summarizes marketable securities held at September 30, 2017. There were no marketable securities as of December 31, 2016.

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
September 30, 2017				
U.S. Treasuries	41,796	—	(13)	41,783
Commercial paper	33,254	—	—	33,254
Corporate bonds	11,069	—	(2)	11,067
	$ 86,119	$ —	$ (15)	$ 86,104

As of September 30, 2017, the Company held 17 securities that were in an unrealized loss position. The aggregate fair value of securities held by the Company in an unrealized loss position for less than 12 months at September 30, 2017 was $53,934 and there were no securities held by the Company in an unrealized loss position for more than 12 months. As of September 30, 2017, the Company did not intend to sell, and would not be more likely than not required to sell, the securities in an unrealized loss position before recovery of their amortized cost basis. Furthermore, the Company has determined that there was no material change in the credit risk of these securities. As a result, the Company determined it did not hold any securities with any other-than-temporary impairment as of September 30, 2017.

There were no realized gains or losses on available-for-sale securities during the three and nine month periods ended September 30, 2017 and 2016.

6. Accrued expenses

Accrued expenses consist of the following:

	September 30, 2017	December 31, 2016
Accrued payroll and related expenses	$ 2,155	$ 2,276
Accrued preclinical, manufacturing and clinical expenses	1,655	602
Accrued professional fees	457	402
Accrued other	340	148
	$ 4,607	$ 3,428

7. Convertible preferred stock

Prior to January 1, 2016, the Company issued 25,085,153 shares of Series A-1 convertible preferred stock (Series A-1 Preferred Stock) at a purchase price of $1.0763 per share resulting in net proceeds of $26,336.

In February 2015 and June 2016, the Company issued 9,410,551 and 23,526,368 shares of Series B-1 convertible preferred stock (Series B-1 Preferred Stock) at a purchase price of $1.0763 per share resulting in net proceeds of $35,232.

In June 2016 the Company issued 14,674,062 shares of Series C-1 convertible preferred stock (Series C-1 Preferred Stock) at a purchase price of $2.25568 resulting in net proceeds of $32,882.

In connection with the closing of the Company's IPO in July 2017, all outstanding convertible preferred stock was converted into 16,154,671 shares of common stock.

8. Stockholders' equity (deficit)

Common stock

The holders of the common stock are entitled to one vote for each share held. Common stockholders are not entitled to receive dividends, unless declared by the Board of Directors.

At September 30, 2017, there were 3,335,205 shares of common stock reserved for the conversion of outstanding stock options and warrants. At December 31, 2016 there were 19,186,147 shares of common stock reserved for the conversion of outstanding Series A-1, Series B-1 and Series C-1 Preferred Stock and for the exercise of outstanding stock options and warrants (in common stock equivalent shares).

	September 30, 2017	December 31, 2016
Series A-1 Preferred Stock	—	5,574,467
Series B-1 Preferred Stock	—	7,319,307
Series C-1 Preferred Stock	—	3,260,897
Warrants	129,491	129,491
Stock options	3,205,714	2,901,985
	3,335,205	19,186,147

Warrants

In connection with a 2013 Series A-1 Preferred Stock issuance, the Company granted to certain investors warrants to purchase 129,491 shares of common stock. The warrants have a $0.05 per share exercise price and a contractual life of 10 years. The fair value of these warrants was recorded as a component of equity at the time of issuance.

9. Stock options

Stock option plans

As of June 30, 2017, there were 3,141,625 options outstanding under the Company's 2007 Stock Incentive Plan. The 2007 Plan expired in June 2017 and there will be no future grants under this plan.

In June 2017 the Company's shareholders approved the 2017 Stock Incentive Plan (the 2017 Plan or the Plan). Under the 2017 Plan, up to 2,255,000 shares of common stock may be granted to the Company's employees, officers, directors, consultants and advisors in the form of options, restricted stock awards or other stock-based awards. The number of shares of common stock issuable under the Plan will be cumulatively increased annually by 4% of the outstanding shares or such lesser amount specified by the Board of Directors (the Board). The terms of the awards are determined by the Board, subject to the provisions of the Plan. Any cancellations under the 2007 Plan would increase the number of shares that could be granted under the 2017 Plan. As of September 30, 2017 there were 2,160,664 shares available for future issuance under the Plan.

With respect to incentive stock options, the option price per share will equal the fair market value of the common stock on the date of grant, as determined by the Board, and the vesting period is generally four years. Nonqualified stock options will be granted at an exercise price established by the Board at its sole discretion (which has not been less than fair market value on the date of grant) and the vesting periods may vary. Options granted under the Plan expire no later than 10 years from the date of grant. The Board may accelerate vesting or extend the expiration of granted options in the case of a merger, consolidation, dissolution, or liquidation of the Company.

A summary of the activity under the Plans is as follows:

	Number of Shares	Weighted-Average Exercise Price	Remaining Contractual Life (in years)	Aggregate Intrinsic Value
Options outstanding January 1, 2017	2,901,985	$ 2.23	8.4	$ 8,906
Granted	545,624	8.49		
Exercised	(233,333)	1.85		
Cancelled	(8,562)	3.62		
Options outstanding September 30, 2017	3,205,714	$ 3.32	8.0	$ 44,797
Options exercisable, September 30, 2017	1,423,801	$ 2.00	7.3	$ 21,764

The weighted-average grant date fair value of options granted during the nine months ended September 30, 2017 and 2016, was $5.27 and $2.19 per share, respectively.

Cash received from the exercise of stock options was $431 and $81 for the nine months ended September 30, 2017 and 2016, respectively.

Stock-based compensation

The Company uses the provisions of ASC 718, *Stock Compensation,* to account for stock-based awards.

The measurement date for employee awards is generally the date of grant. Stock-based compensation expense is recognized over the requisite service period, which is generally the vesting period, using the straight-line method.

For the three months ended September 30, 2017 and 2016 and the nine months ended September 30, 2017 and 2016, the Company recorded stock-based compensation expense of $373, $196, $990 and $436, respectively. The Company has an aggregate of $4,705 of unrecognized stock compensation cost as of September 30, 2017 remaining to be amortized over

the weighted-average period of 3.0 years. The fair value of each option award is estimated on the date of grant using the Black-Scholes option pricing model with the following weighted average assumptions:

	Three months ended		Nine months ended	
	September 30, 2017	September 30, 2016	September 30, 2017	September 30, 2016
Risk-free interest rate	1.9 %	1.3 %	2.2 %	1.4 %
Expected dividend yield	— %	— %	— %	— %
Expected term (years)	6.01	6.25	6.22	6.25
Expected stock price volatility	65 %	71 %	67 %	71 %

Employee Stock Purchase Plan

In connection with the IPO, the Company's board of directors adopted and the Company's stockholders approved the 2017 employee stock purchase plan (the 2017 ESPP), which became effective upon the closing of the Company's IPO in July 2017. The Company has reserved 225,000 shares of common stock for issuance under the 2017 ESPP. The Company has not issued any shares under the 2017 ESPP.

10. Commitments

Operating leases

The Company leases office space in Cambridge, MA under an operating lease, which is effective through March 2019. The lease also provided the Company with a tenant improvement allowance of up to $356. The Company fully utilized the allowance and recorded the assets acquired with the allowance as leasehold improvements. The Company recorded the tenant improvement allowance as a deferred lease incentive and is amortizing the deferred lease incentive through a reduction of rent expense ratably over the lease term.

In connection with the office lease, the Company has a letter of credit agreement for the benefit of its landlord in the amount of $321 as of each September 30, 2017 and December 31, 2016, respectively, collateralized by a money market account. The Company classified this amount as restricted cash in the accompanying consolidated balance sheets.

For the three months ended September 30, 2017 and 2016 and for the nine months ended September 30, 2017 and 2016, rent expense was $419, $419, $1,256 and $1,256, respectively.

The Company is recording rent expense on a straight-line basis over the term of the lease and has recorded deferred rent in the condensed consolidated balance sheets, accordingly.

License agreements

Through September 30, 2017 the Company has licensed intellectual property from two biotechnology companies. The consideration included upfront payments and a commitment to pay annual license fees, milestone payments, and, upon product commercialization, royalties on revenue generated from the sale of products covered by the licenses. The Company recorded milestone payments of $750 and $2,250 during the three and nine months ended September 30, 2017.

11. Related party transactions

Included in Series C-1 financing and the Company’s IPO are investments of $10,000 and $10,000 by Takeda, one of the Company’s collaborators.

12. Subsequent events

For the purposes of the unaudited financial statements as of September 30, 2017 and the period then ended, the Company has evaluated subsequent events through November 9, 2017, the date the unaudited interim financial statements were issued. There were no items requiring adjustment or disclosure in the consolidated financial statements.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our unaudited financial statements and related notes appearing elsewhere in this Quarterly Report on Form 10-Q and the audited financial information and the notes thereto included in our final prospectus for our initial public offering filed pursuant to Rule 424(b) under the Securities Act of 1933, as amended, or the Securities Act, with the Securities and Exchange Commission, or the SEC on June 29, 2017, or the Prospectus.

Our actual results and timing of certain events may differ materially from the results discussed, projected, anticipated, or indicated in any forward-looking statements. We caution you that forward-looking statements are not guarantees of future performance and that our actual results of operations, financial condition and liquidity, and the development of the industry in which we operate may differ materially from the forward-looking statements contained in this Quarterly Report. In addition, even if our results of operations, financial condition and liquidity, and the development of the industry in which we operate are consistent with the forward-looking statements contained in this Quarterly Report, they may not be predictive of results or developments in future periods.

The following information and any forward-looking statements should be considered in light of factors discussed elsewhere in the Quarterly Report on Form 10-Q, including those risks identified under Part II, Item 1A. Risk Factors.

We caution readers not to place undue reliance on any forward-looking statements made by us, which speak only as of the date they are made. We disclaim any obligation, except as specifically required by law and the rules of the SEC, to publicly update or revise any such statements to reflect any change in our expectations or in events, conditions or circumstances on which any such statements may be based, or that may affect the likelihood that actual results will differ from those set forth in the forward-looking statements.

Overview

We are a clinical stage biopharmaceutical company focused on developing antibody drug conjugates (ADCs), that offer a clinically meaningful benefit for cancer patients with significant unmet need. We have leveraged 20 years of industry learning in the ADC field to develop proprietary technologies that enable us to design ADCs to have improved efficacy, safety and tolerability relative to existing ADC therapies. Our most advanced platform, Dolaflexin, has been used to generate a pipeline of proprietary ADC product candidates to address patient populations that are not currently amenable to treatment with traditional ADC-based therapies. Our lead product candidate, XMT-1522, is a HER2-targeted ADC currently in a Phase 1 dose escalation study in primarily breast cancer patients as well as non-small cell lung cancer (NSCLC) and gastric cancer, with interim safety results expected around the end of 2017. Upon the completion of dose escalation, we plan to expand clinical development of XMT-1522 into additional breast cancer, NSCLC, and gastric cancer patient populations, all of which are not addressed by existing HER2 therapies. Our second product candidate, XMT-1536, is an ADC targeting NaPi2b, an antigen broadly expressed in ovarian cancer and NSCLC. In October 2017, the Company received FDA clearance of the XMT-1536 IND and we expect to begin dosing patients in early 2018. Beyond our two lead product candidates, we continue to invest in our earlier stage product candidates and in our ADC technologies. In addition, we have established a strategic partnership with Takeda Pharmaceutical Company Limited, or Takeda, under which they obtained rights to XMT-1522 outside of the United States and Canada. We have also established strategic research and development partnerships with Takeda and Merck KGaA for the development and commercialization of additional ADC product candidates against a limited number of targets selected by our partners based on our Dolaflexin platform. We believe the potential of our ADC technologies, supported by our world-class management team and protected by our robust intellectual property portfolio, will allow us to develop targeted and highly tailored therapies to help cancer patients become cancer survivors.

On July 3, 2017 we closed our IPO of 5,000,000 shares at a price of $15.00 per share; gross proceeds of $75.0 million. We received approximately $67.4 million after deducting underwriting discounts and commissions and offering costs of approximately $7.6 million. On August 2, 2017, we issued and sold 51,977 shares of common stock at $15.00 per share for gross proceeds of $0.78 million upon the partial exercise of the underwriters' overallotment option. We received net proceeds of $0.73 million after deducting $0.05 in underwriting discounts and commissions.

Since inception, our operations have focused on building our platform, identifying potential product candidates, producing drug substance and drug product material for use in preclinical studies, conducting preclinical studies, including Good Laboratory Practice, or GLP, toxicology studies, manufacturing clinical trial material and commencing

clinical trials, establishing and protecting our intellectual property, staffing our company and raising capital. We do not have any products approved for sale and have not generated any revenue from product sales. We have funded our operations primarily through our strategic partnerships, private placements of our convertible preferred stock and our initial public offering.

Since inception, we have incurred significant operating losses. Our net losses were $24.7 million and $15.0 million for the nine months ended September 30, 2017 and 2016, respectively. As of September 30, 2017, we had an accumulated deficit of $83.9 million. We expect to continue to incur significant expenses and operating losses over the next several years. We anticipate that our expenses will increase significantly in connection with our ongoing activities, as we:

- continue clinical development of our lead product candidate XMT-1522;
- continue clinical development activities for our second product candidate XMT-1536, following receipt of IND clearance in October 2017;
- continue activities to discover, validate and develop additional product candidates;
- maintain, expand and protect our intellectual property portfolio;
- hire additional research, development and general and administrative personnel; and
- incur additional costs associated with operating as a public company.

Financial operations overview

Revenue

To date, all of our revenue has been generated from strategic partnerships. We have not generated any revenue from product sales, and we do not expect to generate any revenue from product sales for the foreseeable future.

In March 2014, we entered into a collaboration agreement with Takeda for the development and commercialization of ADC product candidates utilizing Fleximer. Under this agreement, as amended, Takeda may select up to seven target antigens and has selected four target antigens to date. Takeda is responsible for generating antibodies against the target antigens and we are responsible for generating Fleximer and our proprietary payloads and conjugating this to the antibody to create the ADC product candidates. Takeda then has the exclusive right to and is responsible for the further development, manufacture and commercialization of these ADC product candidates, except that we have an option to co-develop and co-commercialize one product targeting one of Takeda's third through seventh target antigens and may exercise such option with respect to an applicable product no later than 30 days after initiation of a Phase 2 clinical study for such product or at an earlier time if Takeda intends to grant rights to such product to a third party.

In addition, in January 2016, we entered into a collaboration agreement with Takeda for the development and commercialization of XMT-1522. Under this agreement, Takeda is granted the exclusive right and responsibility to commercialize XMT-1522 outside the United States and Canada.

For the three months ended September 30, 2017 and 2016 and the nine months ended September 30, 2017 and 2016, we recognized revenue of $5.8 million, $2.4 million, $12.1 million and $10.5 million, respectively, related to the Takeda agreements.

In June 2014, we entered into a collaboration agreement with Merck KGaA for the development and commercialization of ADC product candidates utilizing Fleximer for up to six target antigens. Merck KGaA is responsible for generating antibodies against the target antigens and we are responsible for generating Fleximer and our proprietary payloads and conjugating this to the antibody to create the ADC product candidates. Merck KGaA then has the exclusive right to and is responsible for the further development and commercialization of these ADC product candidates.

For the three months ended September 30, 2017 and 2016 and the nine months ended September 30, 2017 and 2016, we recognized revenue of $0.5 million, $0.8 million, $2.1 million and $2.7 million, respectively, related to the Merck KGaA agreement.

For the foreseeable future, we expect substantially all of our revenue to be generated from our collaboration agreements with Takeda and Merck KGaA and any other collaboration agreements we may enter into. Given the schedule of potential milestone payments and the uncertain nature and timing of clinical development, we cannot predict when or whether we will receive further milestone payments or any royalty payments under these collaborations.

For information about our revenue recognition policy, see the notes to condensed consolidated financial statements included in this Quarterly Report on Form 10-Q.

Operating expenses

Research and development expenses

Research and development expenses consist primarily of costs incurred for our research and development activities, including our drug discovery efforts, and the development of our product candidates, which include:

- employee-related expenses, including salaries, benefits, and stock-based compensation expense;
- costs of funding research and development performed by third parties that conduct research, preclinical activities, manufacturing and clinical trials on our behalf;
- laboratory supplies;
- facility costs, including rent, depreciation and maintenance expenses; and
- upfront and milestone payments under our third-party licensing agreements.

Research and development costs are expensed as incurred. Costs of certain activities, such as manufacturing, preclinical studies and clinical trials, are generally recognized based on an evaluation of the progress to completion of specific tasks. Nonrefundable advance payments for goods or services to be received in the future for use in research and development activities are deferred and capitalized. The capitalized amounts are expensed as the related goods are delivered or the services are performed.

We expect research and development costs to increase significantly for the foreseeable future as our product candidate development programs progress. There are numerous factors associated with the successful development and commercialization of any of our product candidates, including future trial design and various regulatory requirements, many of which cannot be determined with accuracy at our current stage of development. Additionally, future commercial and regulatory factors beyond our control may impact our clinical development programs and plans.

A significant portion of our research and development costs have been external costs, which we track on a program-by-program basis following nomination as a product candidate. Our internal research and development costs are primarily personnel-related costs, facility costs, including depreciation and lab consumables. We have not historically tracked all of our internal research and development expenses on a program-by-program basis as they are deployed across multiple projects under development. The following table summarizes our external research and development expenses, by

program following nomination as a development candidate. Pre-development candidate expenses, unallocated costs and internal research and development costs have been stated separately.

	Three months ended		Nine months ended	
(in thousands)	September 30, 2017	September 30, 2016	September 30, 2017	September 30, 2016
XMT-1522 external costs	$ 3,515	$ 2,485	$ 9,048	$ 10,117
XMT-1536 external costs	2,130	1,022	6,449	1,941
External costs for discovery stage programs and platform development	765	299	1,933	799
Internal research and development costs	5,002	3,749	14,715	10,306
Total research and development costs	$ 11,412	$ 7,555	$ 32,145	$ 23,163

The successful development of our product candidates is highly uncertain. As such, we cannot reasonably estimate or know the nature, timing and estimated costs of the efforts that will be necessary to complete the remainder of the development of our product candidates. We are also unable to predict when, if ever, material net cash inflows will commence from the development efforts associated with our product candidates. This is due to the numerous risks and uncertainties associated with developing drugs, including the uncertainty of:

- successful completion of preclinical studies and IND-enabling studies;
- successful enrollment in and completion of clinical trials;
- receipt of marketing approvals from applicable regulatory authorities;
- establishing commercial manufacturing capabilities or making arrangements with third-party manufacturers;
- obtaining and maintaining patent and trade secret protection and regulatory exclusivity for our product candidates;
- commercializing the product candidates, if and when approved, whether alone or in collaboration with others; and
- continued acceptable safety profile of the drugs following approval.

A change in the outcome of any of these variables with respect to the development, manufacture or commercialization of any of our product candidates would significantly change the costs, timing and viability associated with the development of that product candidate.

General and administrative expenses

General and administrative expenses consist primarily of salaries and other related costs, including stock-based compensation, for personnel in executive, finance, accounting, business development, legal and human resources functions. Other significant costs include facility costs not otherwise included in research and development expenses, legal fees relating to patent and corporate matters and fees for accounting and consulting services.

We anticipate that our general and administrative expenses will increase in the future to support continued research and development activities. This will likely include increased costs related to the hiring of additional personnel, fees to outside consultants and patent costs, among other expenses. We also anticipate increased expenses associated with being a public company, including costs for audit, legal, regulatory and tax-related services, director and officer insurance premiums and investor relations costs.

Other income

Other income consists primarily of interest income earned on cash equivalents and marketable securities.

Critical accounting policies and estimates

Our management's discussion and analysis of our financial condition and results of operations are based on our financial statements, which have been prepared in accordance with U.S. generally accepted accounting principles. The preparation of these financial statements requires us to make judgments and estimates that affect the reported amounts of assets, liabilities, revenues, and expenses and the disclosure of contingent assets and liabilities in our financial statements. We base our estimates on historical experience, known trends and events, and various other factors that are believed to be reasonable under the circumstances. Actual results may differ from these estimates under different assumptions or conditions. On an ongoing basis, we evaluate our judgments and estimates in light of changes in circumstances, facts and experience. The effects of material revisions in estimates, if any, will be reflected in the financial statements prospectively from the date of change in estimates.

We believe that our most critical accounting policies are those relating to revenue recognition, accrued research and development expenses and stock-based compensation, discussed in the notes to condensed consolidated financial statements included in this Quarterly Report on Form 10-Q.

Results of Operations

Comparison of the three months ended September 30, 2017 and 2016

The following table summarizes our results of operations for the three months ended September 30, 2017 and 2016:

	Three months ended September 30,		
(in thousands)	**2017**	**2016**	**Dollar Change**
Collaboration revenue	$ 6,267	$ 3,262	$ 3,005
Operating expenses:			
Research and development	11,412	7,555	3,857
General and administrative	2,905	1,598	1,307
Total operating expenses	14,317	9,153	5,164
Other income:			
Interest income	318	54	264
Total other income	318	54	264
Net loss	$ (7,732)	$ (5,837)	$ (1,895)

Collaboration Revenue

The increase in collaboration revenue from $3.3 million during the three months ended September 30, 2016 to $6.3 million during the comparable period of 2017 is largely the result of $4.0 million in revenue due to changes in estimates of the costs to complete services under the Takeda agreements. This was offset by a $1.0 million decrease due to a reduction in efforts required to support collaboration activities.

Research and Development Expense

Research and development expense increased by $3.9 million from $7.6 million for the three months ended September 30, 2016 to $11.4 million for the three months ended September 30, 2017. The increase in research and development expense was primarily attributable to the following:

- approximately $1.1 million in increased employee compensation primarily due to an increase in headcount as our programs progress in clinical and preclinical studies;
- approximately $1.5 million in increased external research and development expenses for IND-enabling preclinical and toxicology studies as well as the manufacturing activities for our two lead programs;
- approximately $0.8 million milestone paid in connection with the IND filing for XMT-1536; and

- approximately $0.4 million in increased external clinical and regulatory expenses due to the progress of our first in-human trial for our lead candidate XMT-1522.

We expect our research and development expenses to increase as we continue our clinical development of XMT-1522 and XMT-1536 and continue to advance our preclinical product candidate pipeline and invest in improvements in our ADC technologies.

General and Administrative Expense

General and administrative expense increased by $1.3 million from $1.6 million during the three months ended September 30, 2016 to $2.9 million for the three months ended September 30, 2017. The increase in general and administrative expense was primarily attributable to the following:

- approximately $0.1 million in increased employee compensation primarily due to additional headcount as we build the infrastructure to support the growth of the research and development organization;

- approximately $0.7 million in increased consulting and professional fees, including external legal fees, corporate communications and public relations costs; and

- approximately $0.5 million in increased other costs, including taxes, insurance and software.

We expect that our general and administrative expense will increase in future periods as we expand our operations and incur additional costs in connection with being a public company. These increases will likely include legal, auditing and filing fees, additional insurance premiums and general compliance and consulting expenses.

Other Income

Other income was $0.1 million for the three months ended September 30, 2016 compared to $0.4 million for the three months ended September 30, 2017. The change in other income was primarily related to the recognition of interest income during the period ended September 30, 2017 due to higher cash, cash equivalents and marketable securities balances.

Comparison of the nine months ended September 30, 2017 and 2016

The following table summarizes our results of operations for the nine months ended September 30, 2017 and 2016, together with the changes in those items:

	Nine months ended September 30,		
(in thousands)	**2017**	**2016**	**Dollar Change**
Collaboration revenue	$ 14,284	$ 13,175	$ 1,109
Operating expenses:			
Research and development	32,145	23,163	8,982
General and administrative	7,406	5,044	2,362
Total operating expenses	39,551	28,207	11,344
Other income:			
Interest income	527	73	454
Total other income	527	73	454
Net loss	$ (24,740)	$ (14,959)	$ (9,781)

Collaboration Revenue

The increase in collaboration revenue from $13.2 million during the nine months ended September 30, 2016 to $14.3 million during the comparable period of 2017 is primarily the result of a $4.0 million increase in revenue due to the impact of changes in estimates of the total costs to complete the research services under the Takeda agreements. This increase in revenue was partially offset by a $3.0 million decrease in revenue due to the timing of activities performed under the XMT-1522 agreement.

Research and Development Expense

Research and development expense increased by $9.0 million from $23.2 million for the nine months ended September 30, 2016 to $32.1 million for the nine months ended September 30, 2017. The increase in research and development expense was primarily attributable to the following:

- approximately $3.5 million in increased employee compensation and $0.6 million in increased lab consumables primarily due to an increase in headcount as our programs progress in clinical and preclinical studies;
- approximately $1.0 million in increased manufacturing activities for our two lead programs partially offset by external IND-enabling preclinical and toxicology studies in prior year;
- approximately $2.3 million in total milestone payments in connection with our XMT-1522 and XMT-1536 clinical development activities; and
- approximately $1.3 million in increased external clinical and regulatory expenses due to the progress of our first in-human trial for our lead candidate XMT-1522.

We expect our research and development expenses to increase as we continue our clinical development of XMT-1522 and XMT-1536 and continue to advance our preclinical product candidate pipeline and invest in improvements in our ADC technologies.

General and Administrative Expense

General and administrative expense increased by $2.4 million from $5.0 million during the nine months ended September 30, 2016 to $7.4 million for the nine months ended September 30, 2017. The increase in general and administrative expense was primarily attributable to the following:

- approximately $0.7 million in increased personnel costs primarily due to additional headcount as we build the infrastructure to support the growth of the research and development organization;
- approximately $1.2 million in increased professional fees, including external legal fees, corporate communications and public relations costs; and
- approximately $0.5 million in increased other costs, including taxes, insurance and software.

We expect that our general and administrative expense will increase in future periods as we expand our operations and incur additional costs in connection with being a public company. These increases will likely include legal, auditing and filing fees, additional insurance premiums and general compliance and consulting expenses.

Other Income

Other income was $0.1 million for the nine months ended September 30, 2016 compared to $0.5 million for the nine months ended September 30, 2017. The change was primarily related to the recognition of interest income in the period ended September 30, 2017 due to higher cash, cash equivalents and marketable securities balances.

Liquidity and Capital Resources

Sources of Liquidity

Prior to our IPO, we financed our operations to date primarily through private placements of our convertible preferred stock and strategic partnerships. As of September 30, 2017, we had cash, cash equivalents and short-term marketable securities of $136.9 million.

On July 3, 2017, we closed our IPO of 5,000,000 shares at $15.00 per share with gross proceeds of $75.0 million and net proceeds $67.4 million after deducting offering costs of $7.6 million. On August 2, 2017, we issued and sold 51,977

shares of common stock at $15.00 per share for gross proceeds of $0.78 upon the partial exercise of the underwriters' overallotment option. We received net proceeds of $0.73 after deducting $0.05 in underwriting discounts and commissions.

Cash Flows

The following table provides information regarding our cash flows for the nine months ended September 30, 2017 and 2016:

	Nine months ended September 30,	
(in thousands)	**2017**	**2016**
Net cash (used in) provided by operating activities	$ (31,683)	$ 18,412
Net cash used in investing activities	(86,434)	(1,338)
Net cash provided by financing activities	68,576	58,235
(Decrease) increase in cash and cash equivalents	$ (49,541)	$ 75,309

Net Cash (Used in) Provided by Operating Activities

Net cash used in operating activities for the nine months ended September 30, 2017 was $31.7 million as compared to net cash provided by operating activities of $18.4 million during the nine months ended September 30, 2016. We incurred losses during both periods, but the 2016 operating loss was offset by an increase in deferred revenue relating to upfront payments received from the 2016 Takeda agreements.

Net Cash Used in Investing Activities

Net cash used in investing activities was $86.4 million during the nine months ended September 30, 2017 compared to $1.3 million during the nine months ended September 30, 2016. Net cash used in investing activities for the nine months ended September 30, 2017 consisted primarily of purchases of marketable securities offset by maturities of marketable securities. Net cash used in investing activities for the nine months ended September 30, 2016 consisted primarily of purchases of property and equipment.

Net Cash Provided by Financing Activities

Net cash provided by financing activities was $68.6 million during the nine months ended September 30, 2017 compared to net cash provided by financing activities of $58.2 million during the nine months ended September 30, 2016. During the nine months ended September 30, 2017, cash provided by financing activities consisted primarily of the net proceeds from our initial public offering. During the nine months ended September 30, 2016 cash provided by financing activities resulted from the proceeds received from sales of Series B-1 and C-1 Convertible Preferred Stock.

Funding Requirements

We expect our expenses to increase in connection with our ongoing activities, particularly as we continue the research and development of, initiate clinical trials of, and seek marketing approval for, our product candidates. In addition, if we obtain marketing approval for any of our product candidates, we expect to incur significant commercialization expenses related to drug sales, marketing, manufacturing and distribution to the extent that such sales, marketing and distribution are not the responsibility of potential collaborators. Furthermore, we expect to incur additional costs associated with operating as a public company. Accordingly, we will need to obtain substantial additional funding in connection with our continuing operations. If we are unable to raise capital when needed or on attractive terms, we would be forced to delay, reduce or eliminate our research and development programs or future commercialization efforts.

We expect that our existing cash, cash equivalents and marketable securities will enable us to fund our operating plan through at least mid-2019. Our future capital requirements will depend on many factors, including:

- the scope, progress, results and costs of drug discovery, preclinical development, laboratory testing and clinical trials for our product candidates;

- the scope, prioritization and number of our research and development programs;
- the costs, timing and outcome of regulatory review of our product candidates;
- our ability to establish and maintain collaborations on favorable terms, if at all;
- the achievement of milestones or occurrence of other developments that trigger payments under any collaboration agreements we obtain;
- the extent to which we are obligated to reimburse, or entitled to reimbursement of, clinical trial costs under future collaboration agreements, if any;
- the costs of preparing, filing and prosecuting patent applications, maintaining and enforcing our intellectual property rights and defending intellectual property-related claims;
- the extent to which we acquire or in-license other product candidates and technologies;
- the costs of securing manufacturing arrangements for clinical and commercial production; and
- the costs of establishing or contracting for sales and marketing capabilities if we obtain regulatory approvals to market our product candidates.

Identifying potential product candidates and conducting preclinical testing and clinical trials is a time-consuming, expensive and uncertain process that takes many years to complete, and we may never generate the necessary data or results required to obtain marketing approval and achieve drug sales. In addition, our product candidates, if approved, may not achieve commercial success. Our commercial revenues, if any, will be derived from sales of drugs that we do not expect to be commercially available for many years, if at all. Accordingly, we will need to continue to rely on additional financing to achieve our business objectives. Adequate additional financing may not be available to us on acceptable terms, or at all.

Until such time, if ever, as we can generate substantial product revenues, we expect to finance our cash needs through a combination of equity offerings, debt financings, strategic partnerships and licensing arrangements. We do not have any committed external source of funds outside of those to be earned in connection with our agreements with Merck KGaA and Takeda, if development activities are successful under those agreements. To the extent that we raise additional capital through the sale of equity or convertible debt securities, your ownership interest will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect your rights as a common stockholder. Debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends.

If we raise funds through additional strategic partnerships or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates or to grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce or terminate our drug development or future commercialization efforts or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

Off-Balance Sheet Arrangements

We did not have, during the periods presented, and we do not currently have, any off-balance sheet arrangements, as defined under applicable Securities and Exchange Commission rules.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

We are exposed to market risk-related to changes in interest rates. Our primary exposure to market risk is interest rate sensitivity, which is affected by changes in the general level of U.S. interest rates, particularly because our investments,

including cash and cash equivalents, short-term marketable securities are in a money market fund that invests in U.S. Treasury obligations.

We are currently not exposed to market risk related to changes in foreign currency exchange rates, but we may contract with vendors that are located Asia and Europe and may be subject to fluctuations in foreign currency rates at that time.

Inflation generally affects us by increasing our cost of labor and clinical trial costs. We do not believe that inflation had a material effect on our business, financial condition or results of operations during the three and nine months ended September 30, 2017 and 2016.

Item 4. Controls and Procedures

Management's Evaluation of our Disclosure Controls and Procedures

We maintain "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, or the Exchange Act, that are designed to ensure that information required to be disclosed in the reports that we file or submit under the Exchange Act is (1) recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms and (2) accumulated and communicated to our management, including our principal executive and principal financial officer, as appropriate to allow timely decisions regarding required disclosure. Our management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and our management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Our disclosure controls and procedures are designed to provide reasonable assurance of achieving their control objectives.

Our management, with the participation of our chief executive officer and chief business officer, who serves as our principal financial officer, has evaluated the effectiveness of our disclosure controls and procedures as of September 30, 2017, the end of the period covered by this Quarterly Report on Form 10-Q. Based upon such evaluation, our chief executive officer and chief business officer have concluded that our disclosure controls and procedures were effective at the reasonable assurance level as of such date.

Changes in Internal Control over Financial Reporting

There was no change in our internal control over financial reporting that occurred during the period covered by this Quarterly Report on Form 10-Q that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II - OTHER INFORMATION

Item 1. Legal Proceedings

From time to time, we may be subject to various legal proceedings and claims that arise in the ordinary course of our business activities. Although the results of litigation and claims cannot be predicted with certainty, as of the end of the period covered by this report, we did not believe we were party to any claim or litigation, the outcome of which, if determined adversely to us, would individually or in the aggregate be reasonably expected to have a material adverse effect on our business. Regardless of the outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources and other factors.

1A. Risk Factors

The following risk factors and other information included in this Quarterly Report on Form 10-Q should be carefully considered. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently believe to be immaterial may also adversely affect our business. If any of the following risks occur, our business, financial condition, results of operations and future growth prospects could be materially and adversely affected.

Risks related to our financial position and need for additional capital

We have incurred net losses since our inception, we have no products approved for commercial sale and we anticipate that we will continue to incur substantial operating losses for the foreseeable future. We may never achieve or sustain profitability.

We have incurred net losses since our inception. Our net loss was $13.7 million for the year ended December 31, 2016 and $24.8 million for the nine months ended September 30, 2017. As of September 30, 2017, we had an accumulated deficit of $83.9 million. We do not know when or whether we will become profitable. To date, we have not commercialized any products and therefore have never generated any revenues from the sale of products, and we do not expect to generate any product revenues in the foreseeable future. Our losses have resulted principally from costs incurred in our discovery and development activities. Our net losses may fluctuate significantly from quarter to quarter and year to year.

We have devoted most of our financial resources to research and development, including our clinical and preclinical development activities. To date, we have financed our operations primarily through the sale of equity securities and the receipt of funds through strategic partnerships with third parties. The amount of our future net losses will depend, in part, on the rate of our future expenditures. We have not completed pivotal clinical studies for any product candidate and only have one product candidate in clinical studies. It will be several years, if ever, before we have a product candidate ready for commercialization. Even if we obtain regulatory approval to market a product candidate, our future revenues would depend upon the size of the market or markets in which our product candidates received such approval and our ability to achieve sufficient market acceptance, reimbursement from third-party payors and adequate market share for our product candidates in those markets.

We expect to continue to incur significant expenses and increasing net losses for at least the next several years. We expect our expenses will increase substantially in connection with our ongoing activities, as we:

- conduct clinical development of XMT-1522, including our Phase 1 clinical study;
- conduct clinical development of XMT-1536, including our Phase 1 clinical study;
- seek regulatory approval for XMT-1522 and XMT-1536;
- add personnel to support our product development efforts;
- continue our research and development efforts for new product opportunities; and

- continue to operate as a newly public company.

If we are required by the United States Food and Drug Administration, or FDA, or any equivalent foreign regulatory authority to perform clinical studies or studies in addition to those we currently expect to conduct, or if there are any delays in completing the clinical studies of XMT-1522 or XMT-1536, our expenses could increase.

To become and remain profitable, we must succeed in developing our ADC product candidates, obtaining regulatory approval for them, and manufacturing, marketing and selling those products for which we may obtain regulatory approval. We may not succeed in these activities, and we may never generate revenue from product sales or strategic partnerships in an amount sufficient to achieve profitability. Even if we achieve profitability in the future, we may not be able to sustain profitability in subsequent periods. Our failure to become or remain profitable would depress our market value and could impair our ability to raise capital, expand our business, discover or develop other ADC product candidates or continue our operations.

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

Our cash, cash equivalents and marketable securities were $136.9 million as of September 30, 2017. We have utilized substantial amounts of cash since our inception and expect that we will continue to expend substantial resources for the foreseeable future developing XMT-1522, XMT-1536 and any future ADC product candidates. These expenditures may include costs associated with research and development, conducting preclinical studies and clinical studies, potentially obtaining regulatory approvals and manufacturing products, as well as marketing and selling products approved for sale, if any, and potentially acquiring new technologies. In addition, other unanticipated costs may arise. Because the outcome of our planned and anticipated clinical studies is highly uncertain, we cannot reasonably estimate the actual amounts necessary to successfully complete the development and commercialization of our ADC product candidates. Our costs will increase if we experience any delays in our clinical studies for XMT-1522 and anticipated clinical studies for XMT-1536, including delays in enrollment of patients. We also incur costs associated with operating as a newly public company, hiring additional personnel and expanding our facilities.

Our future capital requirements depend on many factors, including:

- the scope, progress, results and costs of researching and developing XMT-1522 and XMT-1536 and any other potential ADC product candidates and conducting preclinical studies and clinical studies;
- the timing of, and the costs involved in, obtaining regulatory approvals for XMT-1522 and XMT-1536 and any other potential ADC product candidates if preclinical studies and clinical studies are successful;
- the cost of manufacturing XMT-1522 and XMT-1536 and any other potential ADC product candidates for clinical studies in preparation for regulatory approval and in preparation for commercialization;
- the cost of commercialization activities for XMT-1522 and XMT-1536 and any other potential ADC product candidates, if any ADC product candidates are approved for sale, including marketing, sales and distribution costs;
- our ability to establish and maintain strategic partnerships, licensing or other arrangements and the financial terms of such agreements;
- the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing patent claims, including litigation costs and the outcome of such litigation; and
- the timing, receipt and amount of sales of, or royalties on, our future products, if any, or products developed by our partners.

Based on our current operating plan, we estimate that our existing cash, cash equivalents and marketable securities will be sufficient to fund our projected operating requirements through at least mid-2019 and to fund our Phase 1 clinical

studies for XMT-1522 and XMT-1536. Our operating plan, however, may change as a result of many factors currently unknown to us and we may need additional funds sooner than planned. Additional funds may not be available when we need them on terms that are acceptable to us, or at all. If adequate funds are not available to us on a timely basis, we may be required to delay, limit, reduce or terminate preclinical studies, clinical studies or other development activities for one or more of our ADC product candidates or delay, limit, reduce or terminate our establishment of sales and marketing capabilities or other activities that may be necessary to commercialize our ADC product candidates. In addition, we may seek additional capital due to favorable market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans.

Raising additional capital may cause dilution to our existing stockholders, restrict our operations or require us to relinquish rights to our technologies or ADC product candidates on unfavorable terms to us.

We may seek additional capital through a variety of means, including through private and public equity offerings and debt financings. To the extent that we raise additional capital through the sale of equity or convertible debt securities, your ownership interest will be diluted, and the terms of such equity or convertible debt securities may include liquidation or other preferences that are senior to or otherwise adversely affect your rights as a stockholder. Debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take certain actions, such as incurring additional debt, making capital expenditures, declaring dividends or encumbering our assets to secure future indebtedness, each of which could adversely impact our ability to conduct our business and execute our operating plan. If we raise additional funds through strategic partnerships with third parties, we may have to relinquish valuable rights to our technologies, including our ADC platforms, or ADC product candidates, or grant licenses on terms that are not favorable to us. If we are unable to raise additional funds through equity or debt financing when needed, we may be required to delay, limit, reduce or terminate our product development or commercialization efforts for XMT-1522, XMT-1536 or any other ADC product candidate, or grant rights to develop and market ADC product candidates that we would otherwise prefer to develop and market ourselves.

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

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

Risks related to development and approval of our ADC product candidates

Failure of a discovery program or product candidate may occur at any stage of preclinical or clinical development, and, because our and our partner's discovery programs and our discovery programs and product candidates are in an early stage of preclinical or clinical development, there is a relatively higher risk of failure and we or our partners may never succeed in developing marketable products or generating product revenue.

Our early encouraging preclinical results for XMT-1522 and XMT-1536 are not necessarily predictive of the results of our ongoing or future discovery programs or clinical studies. Promising results in preclinical studies of a drug candidate may not be predictive of similar results in later-stage preclinical studies or in humans during clinical studies. Many companies in the pharmaceutical and biotechnology industries have suffered significant setbacks in late-stage clinical studies after achieving positive results in early-stage development, including early-stage clinical studies, and we cannot be certain that we will not face similar setbacks. These setbacks have been caused by, among other things, preclinical findings made while clinical studies were underway or safety or efficacy observations made in preclinical studies and clinical studies, including previously unreported adverse events.

Any clinical studies that we may conduct may not demonstrate the efficacy and safety necessary to obtain regulatory approval to market our product candidates. If the results of our ongoing or future clinical studies are inconclusive with respect to the efficacy of our ADC product candidates or if we do not meet the clinical endpoints with statistical significance or if there are safety concerns or adverse events associated with our ADC product candidates, we may be prevented or delayed in obtaining marketing approval for our ADC product candidates. There can be significant variability in safety or efficacy results between different clinical studies of the same product candidate due to numerous factors, including changes in study procedures set forth in protocols, differences in the size and type of the patient populations, changes in and adherence to the clinical study protocols and the rate of dropout among clinical study participants. Moreover, preclinical and clinical data are often susceptible to varying interpretations and analyses, and many companies that believed their product candidates performed satisfactorily in preclinical studies and clinical studies nonetheless failed to obtain FDA approval.

Alternatively, even if we obtain regulatory approval, that approval may be for indications or patient populations that are not as broad as intended or desired or may require labeling that includes significant use or distribution restrictions or safety warnings. We may also be required to perform additional or unanticipated clinical studies to obtain approval or be subject to additional post-marketing testing requirements to maintain regulatory approval. In addition, regulatory authorities may withdraw their approval of a product or impose restrictions on its distribution, such as in the form of a modified Risk Evaluation and Mitigation Strategy, or REMS. The failure to obtain timely regulatory approval of product candidates, any product marketing limitations or a product withdrawal would negatively impact our business, results of operations and financial condition.

We currently have only two ADC product candidates, XMT-1522 and XMT-1536, in clinical studies. A failure of these product candidates in clinical development would adversely affect our business and may require us to discontinue development of other ADC product candidates based on the same technology.

XMT-1522 and XMT-1536 are our only clinical-stage development product candidates. While we have certain other preclinical programs in development and we intend to develop other product candidates, it will take additional investment and time for such programs to reach the same stage of development as XMT-1522 and XMT-1536. Since all of the product candidates in our current pipeline are ADC product candidates based on the same ADC platform, if XMT-1522 or XMT-1536 fails in development as a result of any underlying problem with our ADC platform, then we may be required to discontinue development of all ADC product candidates that are based on the same technology. If we were required to discontinue development of XMT-1522 or XMT-1536 or if XMT-1522 or XMT-1536 were to fail to receive regulatory approval or were to fail to achieve sufficient market acceptance, we could be prevented from or significantly delayed in achieving profitability.

Delays in the commencement, enrollment or completion of clinical studies of our ADC product candidates could result in increased costs to us as well as a delay or failure in obtaining regulatory approval, or prevent us from commercializing our ADC product candidates on a timely basis, or at all.

We cannot guarantee that clinical studies, including our ongoing Phase 1 clinical study for XMT-1522 and anticipated additional clinical studies for XMT-1522 and XMT-1536, will be conducted as planned or completed on schedule, if at all. A failure of one or more clinical studies can occur at any stage of testing. Events that may prevent successful or timely commencement, enrollment or completion of clinical development include, among others:

- delays by us in reaching a consensus with regulatory agencies on study design;
- delays in reaching, or failing to reach, agreement on acceptable terms with prospective clinical research organizations, or CROs, and clinical study sites;
- difficulties in obtaining required Institutional Review Board, or IRB, approval at each clinical study site;
- challenges in recruiting and enrolling suitable patients to participate in clinical studies that meet the criteria of the protocol for the clinical study;
- imposition of a clinical hold by regulatory agencies or IRBs for any reason, including safety concerns or after an inspection of clinical operations or study sites;

- failure by CROs, other third parties or us to adhere to clinical study requirements;
- failure to perform in accordance with the FDA's good clinical practices, or GCP, or applicable regulatory guidelines in other countries;
- inadequate quantity or quality of a product candidate or other materials necessary to conduct clinical studies, including, for example, delays in the testing, validation, manufacturing and delivery of the ADC product candidates to the clinical sites;
- patients not completing participation in a study or not returning for post-treatment follow-up;
- clinical study sites or patients dropping out of a study;
- safety issues, including occurrence of serious adverse events, or SAEs, in clinical studies that are associated with the ADC product candidates that are viewed to outweigh their potential benefits or unforeseen safety issues in our ongoing preclinical studies;
- changes in regulatory requirements and guidance that require amending or submitting new clinical protocols; or
- lack of adequate funding to continue the clinical study.

Delays, including delays caused by the above factors, can be costly and could negatively affect our ability to complete a clinical study. If we or our partners are not able to successfully complete clinical studies, we or they will not be able to obtain regulatory approval and will not be able to commercialize our ADC product candidates or our partners' ADC product candidates based on our technology.

An inability to enroll sufficient numbers of patients in our clinical studies could result in increased costs and longer development periods for our product candidates.

Clinical studies require sufficient patient enrollment, which is a function of many factors, including:

- the size and nature of the patient population;
- the severity of the disease under investigation;
- the nature and complexity of the study protocol, including eligibility criteria for the study;
- the number of clinical study sites and the proximity of patients to those sites;
- standard of care in the diseases under investigation;
- the commitment of clinical investigators to identify eligible patients;
- competing studies or trials; and
- clinicians' and patients' perceptions as to the potential advantages and risks of the drug being studied in relation to other available therapies, including any new drugs that may be approved for the indications we are investigating.

Challenges in recruiting and enrolling suitable patients to participate in clinical studies that meet the criteria of the protocol for clinical studies could increase costs and result in delays to our current development plan for XMT-1522, XMT-1536 or any other future ADC product candidate.

Clinical development, regulatory review and approval by the FDA and comparable foreign authorities are lengthy, time consuming and inherently unpredictable. If we or our partners are ultimately unable to obtain regulatory approval for our product candidates, our business will be substantially harmed.

The preclinical studies and clinical studies of our product candidates are, and the manufacturing and marketing of our product candidates will be, subject to extensive and rigorous review and regulation by numerous government authorities in the United States and in other countries where we intend to test and, if approved, market any such product candidate. These government regulations relate to, among other things, development, clinical studies, manufacturing and commercialization. In order to obtain regulatory approval for the commercial sale of any ADC product candidates, we or our partners must demonstrate through extensive preclinical studies and clinical studies that the ADC product candidate is safe and effective for use in each target indication.

The time required to obtain approval by the FDA and comparable foreign authorities is unpredictable, typically takes many years following the commencement of clinical studies and depends upon numerous factors. Of the large number of drugs in development in the United States, only a small percentage will successfully complete the FDA regulatory approval process and will be commercialized. Accordingly, even if we are able to obtain the requisite financing to continue to fund our development and preclinical studies and clinical studies, we cannot assure you that any of our product candidates will be successfully developed or commercialized.

In addition, approval policies, regulations or the type and amount of clinical data necessary to gain approval may change during the course of a product candidate's clinical development and may vary among jurisdictions, which may cause delays in the approval of or the decision not to approve an application. Regulatory approval has not been obtained for any product candidate based on our ADC technology, and it is possible that none of our existing product candidates or any product candidates we may seek to develop in the future will ever obtain regulatory approval. In addition, we may gain regulatory approval for XMT-1522, XMT-1536 or any other ADC product candidate in some but not all of the territories for which we seek approval or some but not all of the target indications, resulting in limited commercial opportunity for the approved ADC product candidates.

Applications for our or our partners' product candidates could be delayed or could fail to receive regulatory approval for many reasons, including, but not limited to the following:

- the FDA or comparable foreign regulatory authorities may disagree with the number, design or implementation of our clinical studies;
- the population studied in the clinical program may not be sufficiently broad or representative to assure safety in the full population for which we seek approval;
- the FDA or comparable foreign regulatory authorities may disagree with our interpretation of data from preclinical studies or clinical studies;
- the data collected from clinical studies of our product candidates may not meet the level of statistical or clinical significance required by the FDA or comparable foreign regulatory authorities for marketing approval or may otherwise not be sufficient to support the submission of a new drug application or biologics license application, or other submission or to obtain regulatory approval in the United States or elsewhere;
- the FDA may not accept data generated at our preclinical studies and clinical study sites;
- the FDA may require us to conduct additional preclinical studies and clinical studies;
- we may be unable to demonstrate to the FDA or comparable foreign regulatory authorities that a product candidate's risk-benefit ratio for its proposed indication is acceptable;
- the FDA or comparable foreign regulatory authorities may fail to approve the manufacturing processes, test procedures and specifications or facilities of third-party manufacturers with which we contract for clinical and commercial supplies;

- we or any third-party service providers may be unable to demonstrate compliance with current Good Manufacturing Practices, or cGMPs, to the satisfaction of the FDA or comparable foreign regulatory authorities which could result in delays in regulatory approval or require us to withdraw or recall products and interrupt commercial supply of our products; or

- the approval policies or regulations of the FDA or comparable foreign regulatory authorities may significantly change in a manner rendering our clinical data insufficient for approval.

Any of these factors, many of which are beyond our control, may result in our failing to obtain regulatory approval to market any of our product candidates, which would significantly harm our business, results of operations and prospects.

If we fail to obtain regulatory approval in jurisdictions outside the United States, we will not be able to market our products in those jurisdictions.

We intend to market our ADC product candidates, including XMT-1522 and XMT-1536, if approved, in international markets either directly or through partnerships. We have entered into an agreement with Takeda to commercialize XMT-1522 outside of the United States and Canada. Such marketing will require separate regulatory approvals in each market and compliance with numerous and varying regulatory requirements. The approval procedures vary from country to country and may require additional testing that we are not required to perform to obtain regulatory approval in the United States. Moreover, the time required to obtain approval may differ from that required to obtain FDA approval. In addition, in many countries outside the United States, an ADC drug must be approved for reimbursement before it can be approved for sale in that country. Approval by the FDA does not ensure approval by regulatory authorities in other countries or jurisdictions, and approval by one foreign regulatory authority does not ensure approval by regulatory authorities in other foreign countries or by the FDA. The foreign regulatory approval process may include all of the risks associated with obtaining FDA approval. We or our partners may not obtain foreign regulatory approvals on a timely basis, if at all. We or our partners may not be able to file for regulatory approvals and may not receive necessary approvals to commercialize our products in any market. If we or any existing or future partner are unable to obtain regulatory approval for XMT-1522 or XMT-1536 in one or more significant foreign jurisdictions, then the commercial opportunity for XMT-1522 or XMT-1536, as applicable, and our financial condition, will be adversely affected.

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

Any regulatory approvals that we receive for our ADC product candidates may also be subject to limitations on the approved indicated uses for which the product may be marketed or to conditions of approval, or contain requirements for potentially costly post-marketing testing and surveillance to monitor safety and efficacy. In addition, if the FDA approves any of our ADC product candidates, the manufacturing processes, labeling, packaging, distribution, adverse event reporting, storage, advertising, promotion and recordkeeping for the product will be subject to extensive and ongoing regulatory requirements. These requirements include submissions of safety and other post-marketing information and reports, registration, as well as continued compliance with cGMP and GCP, for any clinical studies that we conduct post-approval.

Later discovery of previously unknown problems with an approved ADC drug, including adverse events of unanticipated severity or frequency, or with manufacturing operations or processes, or failure to comply with regulatory requirements, may result in, among other things:

- restrictions on the marketing or manufacturing of the product, withdrawal of the product from the market or voluntary or mandatory product recalls;

- fines, warning letters or holds on clinical studies;

- refusal by the FDA to approve pending applications or supplements to approved applications filed by us, or suspension or revocation of product license approvals;

- product seizure or detention, or refusal to permit the import or export of products; and

- injunctions or the imposition of civil or criminal penalties.

The FDA's policies may change and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of our ADC product candidates. We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative action, either in the United States or abroad. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or not able to maintain regulatory compliance, we may lose any marketing approval that may have been obtained and we may not achieve or sustain profitability, which would adversely affect our business.

Our ADC product candidates or ADCs developed or commercialized by our competitors may cause undesirable side effects or have other properties that delay or prevent regulatory approval of our ADC product candidates or limit their commercial potential.

Undesirable side effects caused by our ADC product candidates or ADCs being developed or commercialized by our competitors could cause us or regulatory authorities to interrupt, delay or halt clinical studies and could result in a more restrictive label or the denial of regulatory approval by the FDA or other regulatory authorities and potential product liability claims. Further, clinical studies by their nature utilize a sample of the potential patient population. With a limited number of subjects and limited duration of exposure, rare and severe side effects of our product candidates or those of our competitors may only be uncovered with a significantly larger number of patients exposed to the drug. SAEs deemed to be caused by our ADC product candidates or those of our competitors, either before or after receipt of marketing approval, could have a material adverse effect on the development of our ADC product candidates and our business as a whole.

If we or others identify undesirable side effects caused by our ADC product candidates or those of our competitors either before or after receipt of marketing approval, a number of potentially significant negative consequences could result, including:

- our clinical studies may be put on hold;
- we may be unable to obtain regulatory approval for our ADC product candidates;
- regulatory authorities may withdraw or limit their approvals of our ADC product candidates;
- regulatory authorities may require the addition of labeling statements, such as a contraindication, black box warnings or additional warnings;
- the FDA may require development of a REMS with Elements to Assure Safe Use as a condition of approval or post-approval;
- we may decide to remove such product candidates from the marketplace;
- we may be subject to regulatory investigations and government enforcement actions;
- we could be sued and held liable for harm caused to patients; and
- our reputation may suffer.

Any of these events could prevent us from achieving or maintaining market acceptance of our ADC product candidates and could substantially increase commercialization costs.

If we or our third-party collaborators are unable to successfully develop and commercialize any required companion diagnostics for our product candidates or engage a third party to do so, or we or they experience significant delays in doing so, we may not realize the full potential of our product candidates.

If a companion diagnostic is required for the label for XMT-1536 or any of our future product candidates, therefore conditioning our ability to market such product candidates on the commercial availability of an approved companion

diagnostic, we may seek approval for our validated assay as a companion diagnostic or we may contract with third parties to create and obtain approval for a companion diagnostic. To be successful in developing and commercializing such a companion diagnostic, we need to address a number of scientific, technical and logistical challenges. We have little experience in the development and commercialization of diagnostics and may not be successful in developing and commercializing appropriate diagnostics to pair with XMT-1536 or any of our other product candidates. Companion diagnostics are subject to regulation by the FDA and equivalent foreign regulatory authorities as medical devices and require separate regulatory approval prior to commercialization. Given our limited experience in developing and commercializing diagnostics, we may rely in part or in whole on third parties for their design, manufacture and commercialization. We, our collaborators or such third parties may encounter difficulties in developing and obtaining approval for the companion diagnostics, including issues relating to selectivity/specificity, analytical validation, reproducibility or clinical validation. Any delay or failure by us, our collaborators or such third parties to develop or obtain regulatory approval of the companion diagnostics could delay or prevent approval of our product candidates. If we, or any third parties that we may contract with to assist us, are unable to successfully develop and commercialize companion diagnostics for our product candidates, or experience delays in doing so:

- the development of XMT-1536 and our product candidates, may be adversely affected if we are unable to appropriately select patients for enrollment in our clinical trials;
- our product candidates may not receive marketing approval if safe and effective use of a therapeutic product candidate depends on the availability of an *in vitro* diagnostic; and
- we may not realize the full commercial potential of any product candidates that receive marketing approval if, among other reasons, we are unable to appropriately select patients who are likely to benefit from therapy with our products.

As a result, our business would be harmed, possibly materially.

In addition, third-party collaborators may encounter production difficulties that could constrain the supply of the companion diagnostics, and both they and we may have difficulties gaining acceptance of the use of the companion diagnostics in the clinical community. If such companion diagnostics fail to gain market acceptance, it would have an adverse effect on our ability to derive revenues from sales of our product candidates, if approved. In addition, any diagnostic company with whom we contract may decide to discontinue selling or manufacturing the companion diagnostic that we anticipate using in connection with development and commercialization of our product candidates or our relationship with such diagnostic company may otherwise terminate. We may not be able to enter into arrangements with another diagnostic company to obtain supplies of an alternative diagnostic test for use in connection with the development and commercialization of our product candidates or do so on commercially reasonable terms, which could adversely affect and/or delay the development or commercialization of our product candidates.

We or our partners may fail to discover and develop additional potential product candidates.

Our and our partners' research programs to identify new product candidates will require substantial technical, financial and human resources, and we or our partners may be unsuccessful in our or their efforts to identify new product candidates. If we or our partners are unable to identify suitable additional product candidates for preclinical and clinical development, our or their ability to develop product candidates and our ability to obtain revenues from commercializing our products or to receive royalties from our partners' sales of their products in future periods could be compromised, which could result in significant harm to our financial position and adversely impact our stock price.

Risks related to our reliance on third parties

Because we rely on third-party manufacturing and supply partners, our supply of research and development, preclinical and clinical development materials may become limited or interrupted or may not be of satisfactory quantity or quality.

We rely on third-party contract manufacturers to manufacture our preclinical and clinical study product supplies, and we lack the internal resources and the capability to manufacture any product candidates on a clinical or commercial scale. The facilities used by our contract manufacturers to manufacture the active pharmaceutical ingredient and final drug product must be acceptable to the FDA and other comparable foreign regulatory agencies pursuant to inspections that

would be conducted after we submit our marketing application or relevant foreign regulatory submission to the applicable regulatory agency. There can be no assurance that our preclinical and clinical development product supplies will not be limited, interrupted or of satisfactory quality or continue to be available at acceptable prices. If our contract manufacturers cannot successfully manufacture material that conforms to our specifications and the strict regulatory requirements of the FDA or applicable foreign regulatory agencies, they will not be able to secure or maintain regulatory approval for their manufacturing facilities. Any replacement of our manufacturers could require significant effort and expertise because there may be a limited number of qualified replacements.

The manufacturing process for an ADC product candidate is subject to FDA and foreign regulatory authority review. Suppliers and manufacturers must meet applicable manufacturing requirements and undergo rigorous facility and process validation tests required by regulatory authorities in order to comply with regulatory standards, such as cGMP. We have no direct control over our contract manufacturers' ability to maintain adequate quality control, quality assurance and qualified personnel. In the event that any of our manufacturers fails to comply with regulatory requirements or to perform its obligations to us in relation to quality, timing or otherwise, or if our supply of components or other materials becomes limited or interrupted for other reasons, we may be forced to manufacture the materials ourselves, for which we currently do not have the capabilities or resources, or enter into an agreement with another third party, which we may not be able to do on reasonable terms, if at all. In some cases, the technical skills or technology required to manufacture our ADC product candidates may be unique or proprietary to the original manufacturer and we may have difficulty transferring such skills or technology to another third party and a feasible alternative may not exist. These factors would increase our reliance on such manufacturer or require us to obtain a license from such manufacturer in order to have another third-party manufacture our ADC product candidates. If we are required to change manufacturers for any reason, we will be required to verify that the new manufacturer maintains facilities and procedures that comply with quality standards and with all applicable regulations and guidelines. The delays associated with the verification of a new manufacturer could negatively affect our ability to develop ADC product candidates in a timely manner or within budget. Our reliance on contract manufacturers also exposes us to the possibility that they, or third parties with access to their facilities, will have access to and may appropriate our trade secrets or other proprietary information.

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

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

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

In order to conduct clinical studies of our ADC product candidates and commercialize any approved ADC product candidates, we, or our manufacturing partners, will need to manufacture them in large quantities. We, or our

manufacturing partners, may be unable to successfully increase the manufacturing capacity for any of our product candidates in a timely or cost-effective manner, or at all. In addition, quality issues may arise during scale-up activities. If we, or any manufacturing partners, are unable to successfully scale up the manufacture of our ADC product candidates in sufficient quality and quantity, the development, testing and clinical studies of that ADC product candidates may be delayed or infeasible, and regulatory approval or commercial launch of any resulting product may be delayed or not obtained, which could significantly harm our business. We are currently evaluating which third-party manufactures to engage for scale-up to commercial supply of our ADC product candidates, including XMT-1522 and XMT-1536. If we are unable to obtain or maintain third-party manufacturing for commercial supply of ADC product candidates, or to do so on commercially reasonable terms, we may not be able to develop and commercialize our ADC product candidates successfully.

We rely on third parties to conduct preclinical studies and clinical studies for our ADC product candidates, including XMT-1522 and XMT-1536, and if they do not properly and successfully perform their obligations to us, we may not be able to obtain regulatory approvals for XMT-1522 or XMT-1536 or any other ADC product candidates that we may develop in the future.

We have designed the Phase 1 clinical study for XMT-1522 and XMT-1536 and intend to design any future clinical study for any future unpartnered ADC product candidates that we may develop if preclinical studies are successful. However, we rely on CROs and other third parties to assist in managing, monitoring and otherwise carrying out many of these studies. As a result, we have less direct control over the conduct, timing and completion of these clinical studies and the management of data developed through clinical studies than would be the case if we were relying entirely upon our own staff. These CROs and other third parties are not our employees and we have limited control over the amount of time and resources that they dedicate to our programs. We compete with many other companies for the resources of these third parties. These third parties may have contractual relationships with other entities, some of which may be our competitors, which may draw time and resources from our programs. The third parties with whom we contract might not be diligent, careful or timely in conducting our preclinical studies or clinical studies, resulting in the preclinical studies or clinical studies being delayed or unsuccessful.

The third parties on whom we rely generally may terminate their engagements at any time, and having to enter into alternative arrangements would delay development and commercialization of our ADC product candidates. Communicating with outside parties can also be challenging, potentially leading to mistakes as well as difficulties in coordinating activities. Outside parties may:

- have staffing difficulties;
- fail to comply with contractual obligations;
- experience regulatory compliance issues;
- undergo changes in priorities or become financially distressed; or
- form relationships with other entities, some of which may be our competitors.

The FDA and comparable foreign regulatory authorities require compliance with regulations and standards, including GCP, for designing, conducting, monitoring, recording, analyzing and reporting the results of clinical studies to assure that the data and results are credible and accurate and that the rights, integrity and confidentiality of study participants are protected. Although we rely, and intend to continue to rely, on third parties to conduct our clinical studies, they are not our employees, and we are responsible for ensuring that each of these clinical studies is conducted in accordance with its general investigational plan, protocol and other requirements. Our reliance on these third parties for research and development activities will reduce our control over these activities but will not relieve us of our responsibilities.

If these third parties do not successfully carry out their duties under their agreements, if the quality or accuracy of the data they obtain is compromised due to their failure to adhere to clinical study protocols or to regulatory requirements, or if they otherwise fail to comply with clinical study protocols or meet expected deadlines, the clinical studies of our ADC product candidates may not meet regulatory requirements. The FDA enforces GCP regulations through periodic inspections of clinical study sponsors, principal investigators and study sites. If we or our CROs fail to comply with applicable GCPs or other regulatory requirements, the clinical data generated in our clinical studies may be deemed

unreliable, third parties may need to be replaced and preclinical development activities or clinical studies may be extended, delayed, suspended or terminated. If any of these events occur, we may not be able to obtain regulatory approval of our ADC product candidates on a timely basis or at all.

We depend on strategic partnerships with other companies to assist in the research, development and commercialization of our ADC platforms and ADC product candidates. If our existing partners do not perform as expected, this may negatively affect our ability to commercialize our ADC product candidates, including XMT-1522, or generate revenues through technology licensing, or may otherwise negatively affect our business.

We have established strategic partnerships and intend to continue to establish strategic partnerships with third parties to research, develop and commercialize our ADC platforms and existing and future ADC product candidates. We entered into a collaboration agreement with Takeda in January 2016 for the co-development of XMT-1522 that granted Takeda rights to commercialize XMT-1522 outside of the United States and Canada. We also have entered into another collaboration agreement with Takeda and a collaboration agreement with Merck KGaA for the development and commercialization of other ADC product candidates. For certain of these programs, we will depend on our partners to design and conduct their clinical studies. As a result, we may not be able to conduct these programs in the manner or on the time schedule we currently contemplate, which may negatively impact our business operations. In addition, if any of these partners withdraw support for these programs or proposed products or otherwise impair their development, our business could be negatively affected.

Our partners may terminate their agreements with us for cause under certain circumstances or at will in certain cases and discontinue use of our technologies. In addition, we cannot control the amount and timing of resources our partners may devote to products utilizing or incorporating our technology. Moreover, our relationships with our partners may divert significant time and effort of our scientific staff and management team and require effective allocation of our resources to multiple internal and collaborative projects. Our partners may fail to perform their obligations under the collaboration agreements or may not perform their obligations in a timely manner. If conflicts arise between our partners and us, the other party may act in a manner adverse to us and could limit our ability to implement our strategies. If any of our partners terminate or breach our agreements with them, or otherwise fail to complete their obligations in a timely manner, it may have a detrimental effect on our financial position by reducing or eliminating the potential for us to receive technology access and license fees, milestones and royalties, reimbursement of development costs, as well as possibly requiring us to devote additional efforts and incur costs associated with pursuing internal development of product candidates. Furthermore, if our partners do not prioritize and commit sufficient resources to programs associated with our product candidates or collaboration product candidates, we or our partners may be unable to commercialize these product candidates, which would limit our ability to generate revenue and become profitable.

In particular, if Takeda were to terminate the XMT-1522 strategic partnership, we would not receive milestone payments, co-funded development payments or, following approval, royalties for the sale of XMT-1522 outside the United States and Canada. As a result of such termination, we would have to engage another strategic partner to complete the XMT-1522 development process and to commercialize XMT-1522 outside the United States and Canada, or to complete the development process and undertake commercializing XMT-1522 outside the United States and Canada ourselves, either of which could significantly delay the continued development and commercialization of XMT-1522 and would increase our costs. In turn, this could significantly harm our financial position, adversely affect our stock price and require us to incur all the costs of developing and commercializing XMT-1522, which are now being co-funded by Takeda.

Our partners may separately pursue competing products, therapeutic approaches or technologies to develop treatments for the diseases targeted by us or our partners. Competing products, either developed by the partners or to which the partners have rights, may result in the withdrawal of partner support for our product candidates. Even if our partners continue their contributions to the strategic partnerships, they may nevertheless determine not to actively pursue the development or commercialization of any resulting products. Any of these developments could harm our product development efforts.

To date, we have depended on a small number of partners for a substantial portion of our revenue. The loss of any one of these partners could result in a material decline in our revenue.

We have strategic partnerships with a limited number of companies. To date, a substantial portion of our revenue has resulted from payments made under agreements with our strategic partners, and we expect that a portion of our revenue

will continue to come from strategic partnerships. If XMT-1522 receives regulatory approval, our revenues will still depend in part on Takeda's ability and willingness to market the approved product outside of the United States and Canada. The loss of any of our partners, especially Takeda, or the failure of our partners to perform their obligations under their agreements with us, including paying license or technology fees, milestone payments, royalties or reimbursements, could have a material adverse effect on our financial performance. Payments under our existing and future strategic partnerships are also subject to significant fluctuations in both timing and amount, which could cause our revenue to fall below the expectations of securities analysts and investors and cause a decrease in our stock price.

We may not be successful in establishing and maintaining additional strategic partnerships, which could adversely affect our ability to develop and commercialize products, negatively impacting our operating results.

We continue to strategically evaluate our partnerships and, as appropriate, we expect to enter into additional strategic partnerships in the future, including potentially with major biotechnology or biopharmaceutical companies. We face significant competition in seeking appropriate partners for our ADC product candidates, and the negotiation process is time-consuming and complex. In order for us to successfully partner our ADC product candidates, potential partners must view these ADC product candidates as economically valuable in markets they determine to be attractive in light of the terms that we are seeking and other available products for licensing by other companies. Even if we are successful in our efforts to establish strategic partnerships, the terms that we agree upon may not be favorable to us, and we may not be able to maintain such strategic partnerships if, for example, development or approval of an ADC product candidate is delayed or sales of an approved product are disappointing. Any delay in entering into strategic partnership agreements related to our ADC product candidates could delay the development and commercialization of such candidates and reduce their competitiveness even if they reach the market. If we are not able to generate revenue under our strategic partnerships when and in accordance with our expectations or the expectations of industry analysts, this failure could harm our business and have an immediate adverse effect on the trading price of our common stock.

If we fail to establish and maintain additional strategic partnerships related to our unpartnered ADC product candidates, we will bear all of the risk and costs related to the development of any such ADC product candidate, and we may need to seek additional financing, hire additional employees and otherwise develop expertise, such as regulatory expertise, for which we have not budgeted. If we were not successful in seeking additional financing, hiring additional employees or developing additional expertise, our cash burn rate would increase or we would need to take steps to reduce our rate of ADC product candidate development. This could negatively affect the development of any unpartnered ADC product candidate.

Risks related to commercialization of our ADC product candidates

Our future commercial success depends upon attaining significant market acceptance of our ADC product candidates, if approved, among physicians, patients and health care payors.

Even if we obtain regulatory approval for XMT-1522, XMT-1536 or any other ADC product candidates that we may develop or acquire in the future, the product candidate may not gain market acceptance among physicians, health care payors, patients and the medical community. Market acceptance of any approved products depends on a number of factors, including:

- the efficacy and safety of the product, as demonstrated in clinical studies;
- the indications for which the product is approved and the label approved by regulatory authorities for use with the product, including any warnings that may be required on the label;
- acceptance by physicians and patients of the product as a safe and effective treatment;
- the cost, safety and efficacy of treatment in relation to alternative treatments;
- the availability of adequate reimbursement and pricing by third-party payors and government authorities;
- relative convenience and ease of administration;

- the prevalence and severity of adverse side effects; and
- the effectiveness of our sales and marketing efforts.

Perceptions of any product are influenced by perceptions of competitors' products that are in the same class of drugs or have a similar mechanism of action. As a result, adverse public perception of our competitors' ADC products may negatively impact the market acceptance of our ADC product candidates. Market acceptance is critical to our ability to generate significant revenue and become profitable. Any therapeutic candidate, if approved and commercialized, may be accepted in only limited capacities or not at all. If any approved products are not accepted by the market to the extent that we expect, we may not be able to generate significant revenue and our business would suffer.

The incidence and prevalence for target patient populations of our drug candidates have not been established with precision. If the market opportunities for our drug candidates are smaller than we estimate or if any approval that we obtain is based on a narrower definition of the patient population, our revenue and ability to achieve profitability will be adversely affected, possibly materially.

The precise incidence and prevalence of breast cancer, NSCLC and gastric cancer with low HER2 expression and of epithelial ovarian cancer and non-squamous NSCLC with NaPi2b expression are unknown. Our projections of both the number of people who have these diseases, as well as the subset of people with these diseases who have the potential to benefit from treatment with our drug candidates, are based on estimates. The total addressable market opportunity for XMT-1522 for the treatment of patients with breast cancer, NSCLC and gastric cancer with HER2 expression and XMT-1536 for the treatment of epithelial ovarian cancer and non-squamous NSCLC with NaPi2b expression will ultimately depend upon, among other things, the diagnosis criteria included in the final label for each of XMT-1522 and XMT-1536, if our drug candidates are approved for sale for these indications, acceptance by the medical community and patient access, drug pricing and reimbursement. The number of patients who can be treated with our drug candidates may turn out to be lower than expected, patients may not be otherwise amenable to treatment with our drugs, or new patients may become increasingly difficult to identify or gain access to, all of which would adversely affect our results of operations and our business.

If we are unable to establish sales, marketing and distribution capabilities, we may not be successful in commercializing our product candidates if and when they are approved.

We do not have a sales or marketing infrastructure and have no experience in the sale, marketing or distribution of products. To achieve commercial success for any product for which we have obtained marketing approval, we will need to establish a sales and marketing organization.

In the future, we expect to build a focused sales and marketing infrastructure to market XMT-1522 in the United States and Canada, if and when it is approved, and to market XMT-1536 and other ADC product candidates in the United States and certain foreign jurisdictions, if and when they are approved. There are risks involved with establishing our own sales, marketing and distribution capabilities. For example, recruiting and training a sales force is expensive and time consuming and could delay any product launch. If the commercial launch of a product candidate for which we recruit a sales force and establish marketing capabilities is delayed or does not occur for any reason, we would have prematurely or unnecessarily incurred these commercialization expenses. This may be costly, and our investment would be lost if we cannot retain or reposition our sales and marketing personnel.

Factors that may inhibit our efforts to commercialize our products on our own include:

- our inability to recruit, train and retain adequate numbers of effective sales and marketing personnel;
- the inability of sales personnel to obtain access to physicians;
- the lack of adequate numbers of physicians to prescribe any future products;
- the lack of complementary products to be offered by sales personnel, which may put us at a competitive disadvantage relative to companies with more extensive product lines; and

- unforeseen costs and expenses associated with creating an independent sales and marketing organization.

If we are unable to establish our own sales, marketing and distribution capabilities and enter into arrangements with third parties to perform these services, our product revenues and our profitability, if any, are likely to be lower than if we were to market, sell and distribute any products that we develop ourselves.

In addition, we may not be successful in entering into arrangements with third parties to sell, market and distribute certain of our product candidates outside of the United States or may be unable to do so on terms that are favorable to us. We likely will have little control over such third parties, and any of them may fail to devote the necessary resources and attention to sell and market our products effectively. If we do not establish sales, marketing and distribution capabilities successfully, either on our own or in collaboration with third parties, we will not be successful in commercializing our product candidates.

Reimbursement may be limited or unavailable in certain market segments for our ADC product candidates, which could make it difficult for us to sell our products profitably.

In both domestic and foreign markets, sales of any of our product candidates, if approved, will depend, in part, on the extent to which the costs of our products will be covered by third-party payors, such as government health programs, commercial insurance and managed health care organizations. These third-party payors decide which drugs will be covered and establish reimbursement levels for those drugs. The containment of health care costs has become a priority of foreign and domestic governments as well as private third-party payors. The prices of drugs have been a focus in this effort. Governments and private third-party payors have attempted to control costs by limiting coverage and the amount of reimbursement for particular medications, which could affect our ability to sell our product candidates profitably. Cost-control initiatives could cause us to decrease the price we might establish for products, which could result in lower than anticipated product revenues.

Reimbursement by a third-party payor may depend upon a number of factors, including the third-party payor's determination that use of a product is:

- a covered benefit under its health plan;
- safe, effective and medically necessary;
- appropriate for the specific patient;
- cost-effective; and
- neither experimental nor investigational.

Adverse pricing limitations may hinder our ability to recoup our investment in XMT-1522, XMT-1536 or any future ADC product candidates, even if such product candidates obtain marketing approval.

Obtaining coverage and reimbursement approval for a product from a government or other third-party payor is a time consuming and costly process that could require us to provide supporting scientific, clinical and cost-effectiveness data for the use of our products to the payor. Further, there is significant uncertainty related to third-party payor coverage and reimbursement of newly approved drugs. We may not be able to provide data sufficient to gain acceptance with respect to coverage and reimbursement. We cannot be sure that coverage or adequate reimbursement will be available for any of our ADC product candidates. Also, we cannot be sure that reimbursement amounts will not reduce the demand for, or the price of, our products. If reimbursement is not available or is available only to limited levels, we may not be able to commercialize certain of our products. In addition, in the United States, third-party payors are increasingly attempting to contain health care costs by limiting both coverage and the level of reimbursement of new drugs. As a result, significant uncertainty exists as to whether and how much third-party payors will reimburse patients for their use of newly approved drugs, which in turn will put pressure on the pricing of drugs.

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

In some countries, including member states of the European Union, the pricing of prescription drugs is subject to governmental control. Additional countries may adopt similar approaches to the pricing of prescription drugs. In such countries, pricing negotiations with governmental authorities can take considerable time after receipt of marketing approval for a product. In addition, there can be considerable pressure by governments and other stakeholders on prices and reimbursement levels, including as part of cost containment measures. Political, economic and regulatory developments may further complicate pricing negotiations, and pricing negotiations may continue after reimbursement has been obtained. Reference pricing used by various European Union member states and parallel distribution, or arbitrage between low-priced and high-priced member states, can further reduce prices. In some countries, we may be required to conduct a clinical study or other studies that compare the cost-effectiveness of our ADC product candidates to other available therapies in order to obtain or maintain reimbursement or pricing approval. We cannot be sure that such prices and reimbursement will be acceptable to us or our strategic partners. Publication of discounts by third-party payors or authorities may lead to further pressure on the prices or reimbursement levels within the country of publication and other countries. If pricing is set at unsatisfactory levels or if reimbursement of our products is unavailable or limited in scope or amount, our revenues from sales by us or our strategic partners and the potential profitability of our ADC product candidates in those countries would be negatively affected.

The impact of recent health care reform legislation and other changes in the health care industry and in health care spending on us is currently unknown and may adversely affect our business model.

Our revenue prospects could be affected by changes in health care spending and policy in the United States and abroad. We operate in a highly regulated industry and new laws, regulations or judicial decisions, or new interpretations of existing laws, regulations or decisions, related to health care availability, the method of delivery or payment for health care products and services could negatively impact our business, operations and financial condition.

The United States and state governments continue to propose and pass legislation designed to reduce the cost of health care. In March 2010, the U.S. Congress enacted the Patient Protection and Affordable Care Act and the Health Care and Education Reconciliation Act, or the Health Care Reform Act, which include changes to the coverage and reimbursement of drug products under government health care programs such as:

- increasing drug rebates under state Medicaid programs for brand name prescription drugs and extending those rebates to Medicaid managed care;
- extending discounted rates on drug products available under the Public Health Service pharmaceutical pricing program to additional hospitals and other providers;
- assessing a fee on manufacturers and importers of brand name prescription drugs reimbursed under certain government programs, including Medicare and Medicaid; and
- requiring drug manufacturers to provide a 50% discount on Medicare Part D brand name prescription drugs sold to Medicare beneficiaries whose prescription drug costs cause the beneficiaries to be subject to the Medicare Part D coverage gap (i.e., the so-called “donut hole”).

It is likely that federal and state legislatures within the United States and foreign governments will continue to consider changes to existing health care legislation. We cannot predict the reform initiatives that may be adopted in the future or whether initiatives that have been adopted will be repealed or modified. The continuing efforts of the government, insurance companies, managed care organizations and other payors of health care services to contain or reduce costs of health care may adversely affect:

- the demand for any products for which we may obtain regulatory approval;
- our ability to set a price that we believe is fair for our products;
- our ability to obtain coverage and reimbursement approval for a product;

- our ability to generate revenues and achieve or maintain profitability; and
- the level of taxes that we are required to pay.

Modifications to or repeal of all or certain provisions of the Health Care Reform Act are expected as a result of the outcome of the 2016 presidential election and Congressional Republicans maintaining control of Congress, consistent with statements made by Donald Trump and members of Congress during the presidential campaign and following the election. We cannot predict the ultimate content, timing or effect of any changes to the Healthcare Reform Act, and significant changes to, or repeal of, the Healthcare Reform Act could have a material adverse effect on our business, financial condition and profitability.

In addition, other legislative changes have been proposed and adopted since the 2010 health care reform legislation. The Budget Control Act of 2011, as amended, or the Budget Control Act, includes provisions intended to reduce the federal deficit. The Budget Control Act resulted in the imposition of 2% reductions in Medicare payments to providers beginning in 2013. Recent legislation extends reductions through 2023. Any significant spending reductions affecting Medicare, Medicaid or other publicly funded or subsidized health programs that may be implemented, or any significant taxes or fees that may be imposed on us, as part of any broader deficit reduction effort or legislative replacement to the Budget Control Act, could have an adverse impact on our anticipated product revenues.

We face substantial competition, which may result in others discovering, developing or commercializing products before, or more successfully than, we do.

The biotechnology and biopharmaceutical industries are characterized by rapidly advancing technologies, intense competition and a strong emphasis on proprietary products. Many third parties compete with us in developing various approaches to cancer therapy. They include pharmaceutical companies, biotechnology companies, academic institutions and other research organizations. Any treatments developed by our competitors could be superior to our ADC product candidates. It is possible that these competitors will succeed in developing technologies that are more effective than our ADC platforms or ADC product candidates or that would render our ADC platforms obsolete or noncompetitive. We anticipate that we will face increased competition in the future as additional companies enter our market and scientific developments surrounding other cancer therapies continue to accelerate.

We are also aware of multiple companies with ADC technologies that may be competitive to our ADC platforms, including Astellas, AstraZeneca, Bristol-Myers Squibb, Daiichi Sankyo, ImmunoGen, Immunomedics, Pfizer and Seattle Genetics. These companies or their partners, including AbbVie, Genentech, Lilly, Novartis, Sanofi and Takeda, may develop ADC product candidates which compete in the same indications as our current and future ADC product candidates. There are approximately 60 ADC product candidates in active clinical development. There are currently two approved ADC therapies in the United States: brentuximab vedotin, marketed by Seattle Genetics and Takeda, and ado-trastuzumab emtansine, marketed by Genentech. Ado-trastuzumab emtansine is a HER2 targeted ADC approved for use in HER2 positive patients and, even though we are developing, and expect to get approval for, XMT-1522 for lower expressing HER2 patients, ado-trastuzumab emtansine may compete with our HER2 targeted ADC, XMT-1522, if XMT-1522 is approved. We expect to compete on improved efficacy, safety and tolerability compared to other ADC product candidates and if our products are not demonstrably superior in these respects compared to other approved therapeutics, we may not be able to compete effectively.

Many of our competitors have significantly greater financial resources and expertise in research and development, manufacturing, preclinical testing, conducting clinical studies, obtaining regulatory approval and marketing than we do. In addition, many of these competitors are active in seeking patent protection and licensing arrangements in anticipation of collecting royalties for use of technology that they have developed. Smaller or early-stage companies may also prove to be significant competitors, particularly through strategic partnerships with large and established companies. These third parties compete with us in recruiting and retaining qualified scientific and management personnel, as well as in acquiring technologies complementary to our programs.

In addition, if our product candidates are approved and commercialized, we may face competition from biosimilars. The route to market for biosimilars was established with the passage of the Health Care Reform Act in March 2010. The Health Care Reform Act establishes a pathway for the FDA approval of follow-on biologics and provides twelve years data exclusivity for reference products and an additional six months exclusivity period if pediatric studies are conducted. In Europe, the European Medicines Agency has issued guidelines for approving products through an abbreviated

pathway, and biosimilars have been approved in Europe. If a biosimilar version of one of our potential products were approved in the U.S. or Europe, it could have a negative effect on sales and gross profits of the potential product and our financial condition.

With respect to our current and potential future product candidates, we believe that our ability to compete effectively and develop products that can be manufactured cost-effectively and marketed successfully will depend on our ability to:

- advance our technology platforms;
- obtain and maintain intellectual property protection for our technologies and products;
- obtain required government and other public and private approvals on a timely basis;
- attract and retain key personnel;
- commercialize effectively;
- obtain reimbursement for our products in approved indications;
- comply with applicable laws, regulations and regulatory requirements and restrictions with respect to the commercialization of our products, including with respect to any changed or increased regulatory restrictions; and
- enter into additional strategic partnerships to advance the development and commercialization of our product candidates.

Risks related to our intellectual property

If we are unable to obtain or protect intellectual property rights related to our technology and ADC product candidates, or if our intellectual property rights are inadequate, we may not be able to compete effectively.

Our success depends in large part on our ability to obtain and maintain protection with respect to our intellectual property and proprietary technology. We rely upon a combination of patents, trade secret protection and confidentiality agreements to protect the intellectual property related to our ADC platforms, XMT-1522 and XMT-1536. The patent position of biopharmaceutical companies is generally uncertain because it involves complex legal and factual considerations and has, in recent years, been the subject of much litigation. As a result, the issuance, scope, validity, enforceability and commercial value of our patent rights is highly uncertain. The standards applied by the United States Patent and Trademark Office, or USPTO, and foreign patent offices in granting patents are not always applied uniformly or predictably. For example, there is no uniform worldwide policy regarding patentable subject matter or the scope of claims allowable in patents. In addition, changes in either the patent laws or interpretation of the patent laws in the United States and other countries may diminish the value of our patents or narrow the scope of our patent protection. The patent prosecution process is expensive, complex and time-consuming, and we may not be able to file, prosecute, maintain, enforce or license all necessary or desirable patents and patent applications at a reasonable cost or in a timely manner. It is also possible that we fail to identify patentable aspects of our research and development output before it is too late to obtain patent protection. There is no assurance that all potentially relevant prior art relating to our patents and patent applications has been found. We may be unaware of prior art that could be used to invalidate an issued patent or prevent our pending patent applications from issuing as patents.

The patent applications that we own or in-license may fail to result in issued patents, and even if they do issue as patents, such patents may not cover our ADC platforms and ADC product candidates in the United States or in other countries. The issuance of a patent is not conclusive as to its inventorship, scope, validity or enforceability, and our patents may be challenged in the courts or patent offices in the United States and abroad. Such challenges may results in loss of exclusivity or in patent claims being narrowed, invalidated or held unenforceable, which could limit our ability to stop others from using or commercializing similar or identical technology and products, or limit the duration of the patent protection of our technology and product candidates. For example, even if patent applications we license or own do successfully issue as patents and even if such patents cover our ADC platforms and ADC product candidates, third

parties may challenge their validity, enforceability or scope, which may result in such patents being narrowed or invalidated. Furthermore, even if they are unchallenged, our patents and patent applications may not provide adequate protection or exclusivity for our ADC platform or ADC product candidates, prevent others from designing around our claims or otherwise provide us with a competitive advantage. Any of these outcomes could impair our ability to prevent competition from third parties, which may have an adverse impact on our business.

If patent applications we own or have in-licensed with respect to our ADC platforms or our ADC product candidates fail to issue as patents, if their breadth or strength of protection is threatened, or if they fail to provide meaningful exclusivity, it could dissuade companies from collaborating with us. We cannot offer any assurances about which, if any, patents will issue, the breadth of any such patents or whether any issued patents will be found invalid and unenforceable or will be threatened by third parties. Any successful challenge to these patents or any other patents owned by or licensed to us could deprive us of rights necessary for the successful development and commercialization of any ADC product candidate. Since patent applications in the United States and most other countries are confidential for a period of time after filing, and some remain so until issued, we cannot be certain that we were the first to file any patent application related to an ADC product candidate. Furthermore, if third parties have filed such patent applications, an interference proceeding in the United States can be initiated by the USPTO or a third-party to determine who was the first to invent any of the subject matter covered by the patent claims of our applications. In addition, patents have a limited lifespan. In the United States, the natural expiration of a patent is generally 20 years after it is filed. Various extensions may be available; however, the life of a patent and the protection it affords is limited. Given the amount of time required for the development, testing and regulatory review of new product candidates, our owned or in-licensed patents protecting such candidates might expire before or shortly after such candidates are commercialized. If we encounter delays in obtaining regulatory approvals, the period of time during which we could market an ADC drug under patent protection could be further reduced. Even if patents covering our ADC product candidates are obtained, once the patent life has expired for a product, we may be open to competition from similar or generic products. The launch of a generic version of one of our products in particular would be likely to result in an immediate and substantial reduction in the demand for our product, which could have a material adverse effect on our business, financial condition, results of operations and prospects.

On September 16, 2011, the Leahy-Smith America Invents Act, or the Leahy-Smith Act, was signed into law, which could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents. The Leahy-Smith Act includes a number of significant changes to U.S. patent law. These include provisions that affect the way patent applications are prosecuted, redefine prior art, may affect patent litigation and switch the U.S. patent system from a "first-to-invent" system to a "first-to-file" system. Under a first-to-file system, assuming the other requirements for patentability are met, the first inventor to file a patent application generally will be entitled to the patent on an invention regardless of whether another inventor had made the invention earlier. These provisions also allow third-party submission of prior art to the USPTO during patent prosecution and set forth additional procedures to attack the validity of a patent by the USPTO administered post grant proceedings. The USPTO developed additional regulations and procedures to govern administration of the Leahy-Smith Act, and many of the substantive changes to patent law associated with the Leahy-Smith Act, and, in particular, the first-to-file provisions, only became effective on March 16, 2013. Accordingly, it is not clear what, if any, impact the Leahy-Smith Act will have on the operation of our business. The Leahy-Smith Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents, all of which could have a material adverse effect on our business, financial condition, results of operations and prospects.

Any loss of patent protection could have a material adverse impact on our business. We may be unable to prevent competitors from entering the market with a product that is similar to or the same as our ADC product candidates.

Issued patents covering XMT-1522 and XMT-1536 and any future ADC product candidates could be found invalid or unenforceable if challenged in court or before the USPTO or comparable foreign authority.

If we or one of our licensing partners initiate legal proceedings against a third party to enforce a patent covering one of XMT-1522, XMT-1536 or any other future product candidates, the defendant could counterclaim that the patent covering our product candidate is invalid or unenforceable. In patent litigation in the United States, defendant counterclaims alleging invalidity or unenforceability are commonplace, and there are numerous grounds upon which a third party can assert invalidity or unenforceability of a patent. Grounds for a validity challenge could be, among other things, an alleged failure to meet any of several statutory requirements, including lack of novelty, obviousness, lack of written description or non-enablement. Grounds for an unenforceability assertion could be, among other things, an

allegation that someone connected with prosecution of the patent withheld relevant information from the USPTO, or made a misleading statement, during prosecution. Third parties may also raise similar claims before administrative bodies in the United States or abroad, even outside the context of litigation. Such mechanisms include re-examination, inter partes review, post-grant review, interference proceedings, derivation proceedings and equivalent proceedings in foreign jurisdictions (e.g., opposition proceedings). Such proceedings could result in revocation, cancellation or amendment to our patents in such a way that they no longer cover and protect our product candidates. The outcome following legal assertions of invalidity and unenforceability is unpredictable. With respect to the validity of our patents, for example, we cannot be certain that there is no invalidating prior art of which we, our licensors, our patent counsel and the patent examiner were unaware during prosecution. If a third party were to prevail on a legal assertion of invalidity or unenforceability, we would lose at least part, and perhaps all, of the patent protection on one or more of our product candidates. Any such loss of patent protection could have a material adverse impact on our business, financial condition, results of operations and prospects.

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

We rely, in part, on license, collaboration and other agreements. We may need to obtain additional licenses from others to advance our research or allow commercialization of our product candidates and it is possible that we may be unable to obtain additional licenses at a reasonable cost or on reasonable terms, if at all. The licensing or acquisition of third party intellectual property rights is a competitive area, and several more established companies may pursue strategies to license or acquire third party intellectual property rights that we may consider attractive. These established companies may have a competitive advantage over us due to their size, capital resources and greater clinical development and commercialization capabilities. In addition, companies that perceive us to be a competitor may be unwilling to assign or license rights to use. We also may be unable to license or acquire third-party intellectual property rights on terms that would allow us to make an appropriate return on our investment.

In addition, our existing licenses and collaboration agreements, including our license with Recepta Biopharma S.A., or Recepta, for intellectual property covering the NaPi2b antibody in XMT-1536 and our agreement with Adimab under which we acquired Adimab's rights to XMT-1519, the antibody in XMT-1522, and were granted a license to certain intellectual property controlled by Adimab to exploit ADC product candidates containing XMT-1519, including XMT-1522, impose, and any future licenses, collaborations or other agreements we enter into are likely to impose, various development, commercialization, funding, milestone, royalty, diligence, sublicensing, insurance, patent prosecution and enforcement or other obligations on us. If we breach any of these obligations, or use the intellectual property licensed to us in an unauthorized manner, we may be required to pay damages and the licensor may have the right to terminate the license, including, in the case of our agreement with Recepta, the license for the rights covering the NaPi2b antibody in XMT-1536. In addition, if we breach certain obligations under our agreement with Adimab, Adimab may have the right to reacquire the rights to XMT-1519. Any of the foregoing could result in us being unable to develop, manufacture and sell products that are covered by the licensed technology or enable a competitor to gain access to the licensed technology. Disputes may arise regarding intellectual property subject to a licensing, collaboration or other agreements, including:

- the scope of rights granted under the license agreement and other interpretation related issues;
- the extent to which our technology and processes infringe on intellectual property of the licensor that is not subject to the licensing agreement;
- the sublicensing of patent and other rights under our collaborative development relationships;
- our diligence obligations under the license agreement and what activities satisfy those diligence obligations;
- the inventorship and ownership of inventions and know how resulting from the joint creation or use of intellectual property by our licensors and us and our partners; and
- the priority of invention of patented technology.

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

In some circumstances, we may not have the right to control the preparation, filing and prosecution of patent applications, or to maintain the patents, covering the technology that we license from third parties. For example, pursuant to our license agreement with Recepta, Ludwig Institute for Cancer Research Ltd., a co-owner of the intellectual property, retains control of such activities. Therefore, we cannot be certain that these patents and applications will be prosecuted, maintained and enforced in a manner consistent with the best interests of our business. If our licensors fail to obtain or maintain such intellectual property, or lose rights to such intellectual property, the rights we have licensed and our exclusivity may be reduced or eliminated and our right to develop and commercialize any of our products that are subject to such licensed rights could be adversely affected.

Moreover, our rights to our in-licensed patents and patent applications are dependent, in part, on inter-institutional or other operating agreements between the joint owners of such in-licensed patents and patent applications. If one or more of such joint owners breaches such inter-institutional or operating agreements, our rights to such in-licensed patents and patent applications may be adversely affected. In addition, while we cannot currently determine the amount of the royalty obligations we would be required to pay on sales of future products, if any, the amounts may be significant. The amount of our future royalty obligations will depend on the technology and intellectual property we use in products that we successfully develop and commercialize, if any. Therefore, even if we successfully develop and commercialize products, we may be unable to achieve or maintain profitability. Any of the foregoing could have a material adverse effect on our competitive position, business, financial conditions, results of operations and prospects.

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

We may become involved in lawsuits to protect or enforce our intellectual property or to defend against intellectual property claims, which could be expensive, time consuming and unsuccessful.

Competitors and other third parties may infringe our patents or misappropriate or otherwise violate our owned and in-licensed intellectual property rights. To counter infringement or unauthorized use, litigation or other intellectual property proceedings may be necessary to enforce or defend our owned and in-licensed intellectual property rights, to protect our trade secrets or to determine the validity and scope of our own intellectual property rights or the proprietary rights of others. Such litigation or proceedings can be expensive and time consuming, and any such claims could provoke defendants to assert counterclaims against us, including claims alleging that we infringe their patents or other intellectual property rights. We may not have sufficient financial or other resources to adequately conduct such litigation or proceedings. Many of our current and potential competitors have the ability to dedicate substantially greater resources to litigate intellectual property rights than we can and have more mature and developed intellectual property portfolios. Accordingly, despite our efforts, we may not be able to prevent third parties from infringing upon or misappropriating our intellectual property. Even if resolved in our favor, litigation or other intellectual property proceedings could result in substantial costs and diversion of management attention and resources, which could harm our business and financial results.

In addition, in a litigation or other proceeding, a court or administrative judge may decide that a patent owned by or licensed to us is invalid or unenforceable, or a court may refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover the technology in question. An adverse result in any litigation or other proceeding could put one or more of our patents at risk of being invalidated, held unenforceable or interpreted narrowly. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation and other proceedings, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. During the course of any patent or other intellectual property litigation or other proceeding, there could be public announcements of the results of hearings, rulings on motions and other interim proceedings or

developments and if securities analysts or investors regard these announcements as negative, the perceived value of our ADC product candidates, programs or intellectual property could be diminished. Accordingly, the market price of our common stock may decline. Any of the foregoing could have a material adverse effect on our business, financial conditions, results of operations and prospects.

Third-party claims of intellectual property infringement or misappropriation may prevent or delay our development and commercialization efforts.

Our commercial success depends in part on our ability and the ability of our strategic partners to develop, manufacture, market and sell product candidates and use our proprietary technologies without infringing, misappropriating or otherwise violating the patents and proprietary rights of third parties. There is a substantial amount of litigation, both within and outside the United States, involving patent and other intellectual property rights in the biopharmaceutical industries, including patent infringement lawsuits, interferences, oppositions, reexamination, *inter partes* review, derivation and post grant review proceedings before the USPTO and corresponding foreign patent offices. Numerous U.S. and foreign issued patents and pending patent applications owned by third parties exist in the fields in which we are developing and may develop our ADC product candidates. As the biopharmaceutical industries expand and more patents are issued, the risk increases that our ADC product candidates may be subject to claims of infringement of the patent rights of third parties.

Third parties may assert that we, our customers, licensees or parties indemnified by us are employing their proprietary technology without authorization or have infringed upon, misappropriated or otherwise violated their intellectual property or other rights, regardless of their merit. For example, we may be subject to claims that we are infringing the patent, trademark or copyright rights of third parties, or that our employees have misappropriated or divulged their former employers' trade secrets or confidential information. There may be third-party patents or patent applications with claims to materials, formulations, methods of manufacture or methods for treatment related to the use or manufacture of our ADC product candidates, that we failed to identify. For example, applications filed before November 29, 2000 and certain applications filed after that date that will not be filed outside the United States remain confidential until issued as patents. Except for certain exceptions, including the preceding exceptions, patent applications in the United States and elsewhere are generally published only after a waiting period of approximately 18 months after the earliest filing, and sometimes not at all. Therefore, patent applications covering our ADC platforms or our ADC product candidates could have been filed by others without our knowledge. Additionally, pending patent applications which have been published can, subject to certain limitations, be later amended in a manner that could cover our ADC platforms, our ADC product candidates or the use or manufacture of our ADC product candidates.

Even if we believe a third party's claims against us are without merit, a court of competent jurisdiction could hold that such third party's patent is valid, enforceable and cover aspects of our product candidates, including the materials, formulations, methods of manufacture, methods of analysis, or methods for treatment, in which case, such third party would be able to block our ability to develop and commercialize the applicable technology or product candidate until such patent expired or unless we obtain a license and we may be required to pay such third-party monetary damages, which could be substantial. Such licenses may not be available on acceptable terms, if at all. Even if we were able to obtain a license, the rights may be nonexclusive, which could result in our competitors gaining access to the same intellectual property and it could require us to make substantial licensing and royalty payments. Ultimately, we could be prevented from commercializing a product, or be forced to cease some aspect of our business operations, if, as a result of actual or threatened patent infringement claims, we are unable to enter into licenses on acceptable terms.

Parties making claims against us may also obtain injunctive or other equitable relief, which could effectively block our ability to further develop and commercialize our ADC technology or one or more of our ADC product candidates. Defending against claims of patent infringement, misappropriation of trade secrets or other violations of intellectual property could be costly and time consuming, regardless of the outcome. Thus, even if we were to ultimately prevail, or to settle at an early stage, such litigation could burden us with substantial unanticipated costs. In addition, litigation or threatened litigation could result in significant demands on the time and attention of our management team, distracting them from the pursuit of other company business. In the event of a successful claim of infringement against us, in addition to potential injunctive relief, we may have to pay substantial damages, including treble damages and attorneys' fees for willful infringement, pay royalties, redesign our infringing products or obtain one or more licenses from third parties, which may be impossible or require substantial time and monetary expenditure.

We may face a claim of misappropriation if a third party believes that we inappropriately obtained and used trade secrets of such third party. If we are found to have misappropriated a third party's trade secrets, we may be prevented from further using such trade secrets, limiting our ability to develop our ADC product candidates, we may be required to obtain a license to such trade secrets which may not be available on commercially reasonable terms or at all and may be non-exclusive, and we may be required to pay damages, which could be substantial. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations and prospects.

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

Filing, prosecuting and defending patents on product candidates in all countries throughout the world where we expect there to be significant markets for our products could be prohibitively expensive, and the laws of foreign countries may not protect our rights to the same extent as the laws of the United States. In addition, our intellectual property license agreements may not always include worldwide rights. For example, certain U.S. and foreign issued patents and patent applications are licensed to us by Recepta on a worldwide basis, except that Recepta retains exclusive rights in such patents and patent applications in Brazil. Consequently, we may not be able to prevent third parties from practicing our inventions in all countries outside the United States. Competitors may use our technologies in jurisdictions where we have not obtained patent protection to develop their own products and, further, may export otherwise infringing products to territories where we have patent protection or licenses but enforcement is not as strong as that in the United States. These products may compete with our products, and our patents or other intellectual property rights may not be effective or sufficient to prevent them from competing.

Additionally, the laws of some foreign countries do not protect intellectual property rights to the same extent as the laws of the United States, and many companies have encountered significant problems in protecting and defending such rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents and other intellectual property protection, particularly those relating to biotechnology, which could make it difficult for us to stop the infringement of our licensed and owned patents or marketing of competing products in violation of our intellectual property and proprietary rights generally. Proceedings to enforce our intellectual property and proprietary rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business, could put our patents at risk of being invalidated or interpreted narrowly, could put our patent applications at risk of not issuing as patents, and could provoke third parties to assert claims against us. We may not prevail in any lawsuits that we initiate, and the damages or other remedies awarded, if any, may not be commercially meaningful. Accordingly, our efforts to enforce our intellectual property and proprietary rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license.

Many countries have compulsory licensing laws under which a patent owner may be compelled to grant licenses to third parties. In addition, many countries limit the enforceability of patents against government agencies or government contractors. In these countries, the patent owner may have limited remedies, which could materially diminish the value of such patent. If we or any of our licensors is forced to grant a license to third parties with respect to any patents relevant to our business, our competitive position may be impaired, and our business, financial condition, results of operations and prospects may be adversely affected.

Confidentiality agreements with employees and third parties may not prevent unauthorized disclosure of trade secrets and other proprietary information.

In addition to the protection afforded by patents, we rely on trade secret protection and confidentiality agreements to protect proprietary know-how that is not patentable or that we elect not to patent, processes for which patents are difficult to enforce and any other elements of our platform technology and discovery and development processes that involve proprietary know-how, information or technology that is not covered by patents. However, trade secrets can be difficult to protect. We seek to protect our proprietary technology and processes, in part, by entering into confidentiality agreements with our employees, consultants and outside scientific advisors, contractors and partners. We cannot guarantee that we have entered into such agreement with each party that may have or have had access to our trade secrets or proprietary technology and processes. Additionally, our confidentiality agreements and other contractual protections may not be adequate to protect our intellectual property from unauthorized disclosure, third-party infringement or misappropriation. We may not have adequate remedies in the case of a breach of any such agreements, and our trade secrets and other proprietary information could be disclosed to our competitors or others may independently develop

substantially equivalent or superior proprietary information and techniques or otherwise gain access to our trade secrets or disclose such technologies.

Enforcing a claim that a third party illegally obtained and is using any of our trade secrets is expensive and time consuming, and the outcome is unpredictable. In addition, some courts outside and within the United States sometimes are less willing to protect trade secrets. Misappropriation or unauthorized disclosure of our trade secrets could impair our competitive position and may have a material adverse effect on our business.

We may be subject to claims by third parties asserting that our licensors, employees, consultants, advisors or we have misappropriated their intellectual property, or claiming ownership of what we regard as our own intellectual property.

Many of our and our licensors' employees, including our senior management, consultants or advisors are currently, or previously were, employed at universities or other biotechnology or pharmaceutical companies, including our competitors or potential competitors. Some of these employees, including members of our senior management, executed proprietary rights, non-disclosure and non-competition agreements, or similar agreements, in connection with such previous employment. Although we try to ensure that our employees, consultants and advisors do not use the proprietary information or know-how of others in their work for us, we may be subject to claims that we or these individuals have used or disclosed intellectual property, including trade secrets or other proprietary information, of any such individual's current or former employer. Litigation may be necessary to defend against such claims. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel or sustain damages. Such intellectual property rights could be awarded to a third party, and we could be required to obtain a license from such third party to commercialize our technology or products. Such a license may not be available on commercially reasonable terms or at all. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management. Any of the foregoing may have a material adverse effect on our business, financial condition, results of operations and prospects.

In addition, while it is our policy to require our employees and contractors who may be involved in the conception or development of intellectual property to execute agreements assigning such intellectual property to us, we may be unsuccessful in executing such an agreement with each party who, in fact, conceives or develops intellectual property that we regard as our own. The assignment of intellectual property rights may not be self-executing or the assignment agreements may be breached, and we may be forced to bring claims against third parties, or defend claims that they may bring against us, to determine the ownership of what we regard as our intellectual property.

If we do not obtain patent term extension and data exclusivity for any product candidates we may develop, our business may be materially harmed.

Depending upon the timing, duration and specifics of any FDA marketing approval of any product candidates we may develop, one or more of our owned or in-licensed U.S. patents may be eligible for limited patent term extension under the Drug Price Competition and Patent Term Restoration Act of 1984, or Hatch-Waxman Amendments. The Hatch-Waxman Amendments permit a patent term extension of up to five years as compensation for the patent term lost during the FDA regulatory review process. A patent term extension cannot extend the remaining term of a patent beyond a total of 14 years from the date of product approval, only one patent may be extended and only those claims covering the approved drug, a method for using it or a method for manufacturing it may be extended. However, we may not be granted an extension because of, for example, failing to exercise due diligence during the testing phase or regulatory review process, failing to apply within applicable deadlines, failing to apply prior to expiration of relevant patents, or otherwise failing to satisfy applicable requirements. Moreover, the applicable time period or the scope of patent protection afforded could be less than we request. If we are unable to obtain patent term extension or the term of any such extension is less than we request, our competitors may obtain approval of competing products following our patent expiration, and our business, financial condition, results of operations and prospects could be materially harmed.

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

Periodic maintenance fees, renewal fees, annuity fees and various other government fees on patents and patent applications will be due to be paid to the USPTO and various government patent agencies outside of the United States

over the lifetime of our owned or licensed patents and applications. In certain circumstances, we rely on our licensing partners to pay these fees due to U.S. and non-U.S. patent agencies. The USPTO and various non-U.S. government agencies require compliance with several procedural, documentary, fee payment and other similar provisions during the patent application process. We are also dependent on our licensors to take the necessary action to comply with these requirements with respect to our licensed intellectual property. In some cases, an inadvertent lapse can be cured by payment of a late fee or by other means in accordance with the applicable rules. There are situations, however, in which non-compliance can result in abandonment or lapse of the patent or patent application, resulting in a partial or complete loss of patent rights in the relevant jurisdiction. In such an event, potential competitors might be able to enter the market with similar or identical products or technology, which could have a material adverse effect on our business, financial condition, results of operations and prospects.

Intellectual property rights do not necessarily address all potential threats.

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

- others may be able to make ADC products that are similar to any product candidates we may develop or utilize similar ADC-related technology but that are not covered by the claims of the patents that we license or may own in the future;
- we, or our license partners or current or future strategic partners, might not have been the first to make the inventions covered by the issued patent or pending patent application that we license or may own in the future;
- we, or our license partners or current or future strategic partners, might not have been the first to file patent applications covering certain of our or their inventions;
- others may independently develop similar or alternative technologies or duplicate any of our technologies without infringing our owned or licensed intellectual property rights;
- it is possible that our pending licensed patent applications or those that we may own in the future will not lead to issued patents;
- issued patents that we hold rights to may be held invalid or unenforceable, including as a result of legal challenges by our competitors;
- our competitors might conduct research and development activities in countries where we do not have patent rights and then use the information learned from such activities to develop competitive products for sale in our major commercial markets;
- we may not develop additional proprietary technologies that are patentable;
- the patents of others may harm our business; and
- we may choose not to file a patent in order to maintain certain trade secrets or know how, and a third party may subsequently file a patent covering such intellectual property.

Should any of these events occur, they could have a material adverse effect on our business, financial condition, results of operations and prospects.

Risks related to our business and industry

If we fail to attract and keep senior management and key scientific personnel, we may be unable to successfully develop our ADC product candidates, conduct our clinical studies and commercialize our ADC product candidates.

Our ability to compete in the highly competitive biotechnology and biopharmaceutical industries depends upon our ability to attract, motivate and retain highly qualified managerial, scientific and medical personnel. We are highly dependent on members of our senior management, including Anna Protopapas, our President and Chief Executive Officer, and Donald Bergstrom, our Chief Medical Officer. The loss of the services of any of these persons could impede the achievement of our research, development and commercialization objectives. Also, each of these persons may terminate their employment with us at any time. We do not maintain "key person" insurance for any of our executives or other employees.

Recruiting and retaining qualified scientific, clinical, sales and marketing personnel will also be critical to our success. We conduct our operations at our facility in Cambridge, Massachusetts, in a region that is headquarters to many other biopharmaceutical companies and many academic and research institutions. Competition for skilled personnel is intense and the turnover rate can be high, which may limit our ability to hire and retain highly qualified personnel on acceptable terms or at all. We may not be able to attract and retain these personnel on acceptable terms given the competition among numerous pharmaceutical and biotechnology companies for similar personnel. In addition, we rely on consultants and advisors, including scientific and clinical advisors, to assist us in formulating our research and development and commercialization strategy. Our consultants and advisors, may be employed by employers other than us and may have commitments under consulting or advisory contracts with other entities that may limit their availability to us.

We may encounter difficulties in managing our growth and expanding our operations successfully.

As we seek to advance our ADC product candidates through clinical studies and commercialization, we will need to expand our development, regulatory, manufacturing, marketing and sales capabilities or contract with third parties to provide these capabilities for us. As our operations expand, we expect that we will need to manage additional relationships with various strategic partners, suppliers and other third parties. Future growth will impose significant added responsibilities on members of management. Our future financial performance and our ability to commercialize our ADC product candidates and to compete effectively will depend, in part, on our ability to manage any future growth effectively. To that end, we must be able to manage our development efforts and clinical studies effectively and hire, train and integrate additional management, administrative and, if necessary, sales and marketing personnel. Due to our limited financial resources and the limited experience of our management team in managing a company with such anticipated growth, we may not be able to accomplish these tasks, and our failure to accomplish any of them could prevent us from successfully growing our company or disrupt our operations.

Our relationships with health care professionals, institutional providers, principal investigators, consultants, customers (actual and potential) and third-party payors are, and will continue to be, subject, directly and indirectly, to federal and state health care fraud and abuse, false claims, marketing expenditure tracking and disclosure, government price reporting and health information privacy and security laws. If we are unable to comply, or have not fully complied, with such laws, we could face penalties, including, without limitation, civil, criminal and administrative penalties, damages, monetary fines, disgorgement, possible exclusion from participation in Medicare, Medicaid and other federal health care programs, contractual damages, reputational harm, diminished profits and future earnings and curtailment or restructuring of our operations.

Our business operations and activities may be directly or indirectly subject to various federal and state fraud and abuse laws, including, without limitation, the federal Anti-Kickback Statute and the federal False Claims Act. If we obtain FDA approval for any of our ADC product candidates and begin commercializing those products in the United States, our potential exposure under such laws will increase significantly, and our costs associated with compliance with such laws are also likely to increase. These laws may impact, among other things, our current activities with principal investigators and research subjects, as well as proposed and future sales, marketing and education programs. In addition, we may be subject to patient privacy regulation by the federal government and state governments in which we conduct our business. The laws that may affect our ability to operate include, but are not limited to:

- the federal Anti-Kickback Statute, which prohibits, among other things, knowingly and willfully soliciting, receiving, offering or paying any remuneration (including any kickback, bribe or rebate), directly or indirectly,

overtly or covertly, in cash or in kind, to induce, or in return for, either the referral of an individual, or the purchase, lease, order or recommendation of any good, facility, item or service for which payment may be made, in whole or in part, under a federal health care program, such as the Medicare and Medicaid programs;

- federal civil and criminal false claims laws and civil monetary penalty laws, which prohibit, among other things, individuals or entities from knowingly presenting, or causing to be presented, claims for payment or approval from Medicare, Medicaid or other third-party payors that are false or fraudulent or knowingly making a false statement to improperly avoid, decrease or conceal an obligation to pay money to the federal government;

- the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, which created new federal criminal statutes that prohibit knowingly and willfully executing, or attempting to execute, a scheme to defraud any health care benefit program or obtain, by means of false or fraudulent pretenses, representations or promises, any of the money or property owned by, or under the custody or control of, any health care benefit program, regardless of the payor (e.g., public or private) and knowingly and willfully falsifying, concealing, or covering up by any trick or device a material fact or making any materially false statements in connection with the delivery of, or payment for, health care benefits, items or services relating to health care matters;

- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009 and their respective implementing regulations, which impose requirements on certain covered health care providers, health plans, and health care clearinghouses as well as their respective business associates that perform services for them that involve the use, or disclosure of, individually identifiable health information, relating to the privacy, security and transmission of individually identifiable health information without appropriate authorization;

- the federal physician self-referral law, commonly known as the Stark Law, which prohibits a physician from making a referral to an entity for certain designated health services reimbursed by Medicare or Medicaid if the physician or a member of the physician's family has a financial relationship with the entity, and which also prohibits the submission of any claims for reimbursement for designated health services furnished pursuant to a prohibited referral;

- the federal Physician Payments Sunshine Act, created under Section 6002 of the Health Care Reform Act, and its implementing regulations requires manufacturers of drugs, devices, biologicals and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program (with certain exceptions) to report annually to the United States Department of Health and Human Services information related to payments or other transfers of value made to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors) and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members, with data collection required beginning August 1, 2013 and reporting to the Centers for Medicare & Medicaid Services required by March 31, 2014 and by the 90th day of each subsequent calendar year;

- federal consumer protection and unfair competition laws, which broadly regulate marketplace activities and activities that potentially harm consumers;

- federal government price reporting laws, changed by the Health Care Reform Act to, among other things, increase the minimum Medicaid rebates owed by most manufacturers under the Medicaid Drug Rebate Program and offer such rebates to additional populations, that require us to calculate and report complex pricing metrics to government programs, where such reported prices may be used in the calculation of reimbursement or discounts on our marketed drugs (participation in these programs and compliance with the applicable requirements may subject us to potentially significant discounts on our products, increased infrastructure costs, and potentially limit our ability to offer certain marketplace discounts);

- the Foreign Corrupt Practices Act, a United States law which regulates certain financial relationships with foreign government officials (which could include, for example, certain medical professionals); and

- state law equivalents of each of the above federal laws, such as anti-kickback, false claims, consumer protection and unfair competition laws which may apply to our business practices, including, but not limited to, research, distribution, sales and marketing arrangements as well as submitting claims involving health care items or services reimbursed by any third-party payor, including commercial insurers; state laws that require biotech companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government that otherwise restricts payments that may be made to health care providers; state laws that require drug manufacturers to file reports with states regarding marketing information, such as the tracking and reporting of gifts, compensation and other remuneration and items of value provided to health care professionals and entities (compliance with such requirements may require investment in infrastructure to ensure that tracking is performed properly, and some of these laws result in the public disclosure of various types of payments and relationships, which could potentially have a negative effect on our business or increase enforcement scrutiny of our activities); and state laws governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways, with differing effects.

In addition, the regulatory approval and commercialization of any of our product candidates outside the United States will also likely subject us to foreign equivalents of the health care laws mentioned above, among other foreign laws.

The Health Care Reform Act, among other things, amended the intent standard of the federal Anti-Kickback Statute and criminal health care fraud statutes to a stricter standard such that a person or entity no longer needs to have actual knowledge of this statute or specific intent to violate it. In addition, the Health Care Reform Act codified case law that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the federal False Claims Act.

Efforts to ensure that our business arrangements will comply with applicable health care laws may involve substantial costs. It is possible that governmental and enforcement authorities will conclude that our business practices may not comply with current or future statutes, regulations or case law interpreting applicable fraud and abuse or other health care laws and regulations. If our operations are found to be in violation of any of the laws described above or any other governmental regulations that apply to us, we may be subject to penalties, including, without limitation, civil, criminal and administrative penalties, damages, monetary fines, disgorgement, possible exclusion from participation in Medicare, Medicaid and other federal health care programs, contractual damages, reputational harm, diminished profits and future earnings and curtailment or restructuring of our operations.

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

We are exposed to the risk of employee fraud or other misconduct. Misconduct by employees could include intentional failures to comply with FDA regulations, to provide accurate information to the FDA, to comply with manufacturing standards we have established, to comply with federal and state health care fraud and abuse laws and regulations, to report financial information or data accurately or to disclose unauthorized activities to us. In particular, sales, marketing and business arrangements in the health care industry are subject to extensive laws and regulations intended to prevent fraud, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs and other business arrangements. Employee misconduct could also involve the improper use of information obtained in the course of clinical studies, which could result in regulatory sanctions and serious harm to our reputation. It is not always possible to identify and deter employee misconduct, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business, including the imposition of civil, criminal and administrative penalties, damages, monetary fines, disgorgement, possible exclusion from participation in Medicare, Medicaid and other federal health care programs, contractual damages, reputational harm, diminished profits and future earnings and curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and our results of operations.

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

We face an inherent risk of product liability as a result of the clinical testing of our ADC product candidates and will face an even greater risk if we commercialize any products. For example, we may be sued if any product we develop allegedly causes injury or is found to be otherwise unsuitable during product testing, manufacturing, marketing or sale. Any such product liability claims may include allegations of defects in manufacturing, defects in design, a failure to warn of dangers inherent in the product, negligence, strict liability and a breach of warranties. Claims could also be asserted under state consumer protection acts. If we cannot successfully defend ourselves against product liability claims, we may incur substantial liabilities or be required to limit commercialization of our ADC product candidates. Even a successful defense would require significant financial and management resources. Regardless of the merits or eventual outcome, liability claims may result in:

- injury to our reputation;
- decreased demand for our product candidates or products that we may develop;
- withdrawal of clinical study participants;
- costs to defend the related litigations;
- a diversion of management's time and our resources;
- substantial monetary awards to study participants or patients;
- product recalls, withdrawals or labeling, marketing or promotional restrictions;
- loss of revenue;
- the inability to commercialize our ADC product candidates; and
- a decline in our stock price.

Failure to obtain and retain sufficient product liability insurance at an acceptable cost to protect against potential product liability claims could prevent or inhibit the commercialization of products we develop. We currently carry product liability insurance covering our clinical studies in the amount of $10 million in the aggregate. Although we maintain such insurance, any claim that may be brought against us could result in a court judgment or settlement in an amount that is not covered, in whole or in part, by our insurance or that is in excess of the limits of our insurance coverage. Our insurance policies also have various exclusions, and we may be subject to a product liability claim for which we have no coverage. We will have to pay any amounts awarded by a court or negotiated in a settlement that exceed our coverage limitations or that are not covered by our insurance, and we may not have, or be able to obtain, sufficient capital to pay such amounts. If we are unable to obtain or maintain sufficient insurance coverage at an acceptable cost or to otherwise protect against potential product liability claims, it could prevent or inhibit the development and commercial production and sale of our product candidates, which could adversely affect our business, financial condition, results of operations and prospects.

We and our third-party contract manufacturers must comply with environmental, health and safety laws and regulations, and failure to comply with these laws and regulations could expose us to significant costs or liabilities.

We and our third-party manufacturers are subject to numerous environmental, health and safety laws and regulations, including those governing laboratory procedures and the use, generation, manufacture, distribution, storage, handling, treatment, remediation and disposal of hazardous materials and wastes. Hazardous chemicals, including flammable and biological materials, are involved in certain aspects of our business, and we cannot eliminate the risk of injury or contamination from the use, generation, manufacture, distribution, storage, handling, treatment or disposal of hazardous materials and wastes. In the event of contamination or injury, or failure to comply with environmental, health and safety laws and regulations, we could be held liable for any resulting damages and any such liability could exceed our assets

and resources. We could also incur significant costs associated with civil or criminal fines and penalties for failure to comply with such laws and regulations. We are uninsured for third-party injury from contamination.

Environmental, health and safety laws and regulations are becoming increasingly more stringent. We may incur substantial costs in order to comply with current or future environmental, health and safety laws and regulations. These current or future laws and regulations may impair our research, development or production efforts. Our failure to comply with these laws and regulations also may result in substantial fines, penalties or other sanctions.

Further, with respect to the operations of our third-party contract manufacturers, it is possible that if they fail to operate in compliance with applicable environmental, health and safety laws and regulations or properly dispose of wastes associated with our products, we could be held liable for any resulting damages, suffer reputational harm or experience a disruption in the manufacture and supply of our product candidates or products.

We may acquire assets or form strategic alliances in the future, and we may not realize the benefits of such acquisitions.

We may acquire additional technologies and assets, form strategic alliances or create joint ventures with third parties that we believe will complement or augment our existing business. If we acquire assets with promising markets or technologies, we may not be able to realize the benefit of acquiring such assets if we are unable to successfully integrate them with our existing technologies. We may encounter numerous difficulties in developing, manufacturing and marketing any new products resulting from a strategic alliance or acquisition that delay or prevent us from realizing their expected benefits or enhancing our business. We cannot assure you that, following any such acquisition, we will achieve the expected synergies to justify the transaction.

Our internal computer systems, or those of our third-party CROs or other contractors or consultants, may fail or suffer security breaches, which could result in a material disruption of our product candidates' development programs.

Despite the implementation of security measures, our internal computer systems and those of our third-party CROs and other contractors and consultants are vulnerable to damage from computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. While we have not experienced any such system failure, accident or security breach to date, if such an event were to occur and cause interruptions in our or our CROs' operations, it could result in a material disruption of our programs. For example, the loss of clinical study data for our product candidates could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. To the extent that any disruption or security breach results in a loss of or damage to our data or applications or other data or applications relating to our technology or product candidates, or inappropriate disclosure of confidential or proprietary information, we could incur liabilities and the further development of our product candidates could be delayed.

Unfavorable global economic conditions could adversely affect our business, financial condition or results of operations.

Our results of operations could be adversely affected by general conditions in the global economy and in the global financial markets. For example, the global financial crisis caused extreme volatility and disruptions in the capital and credit markets. A severe or prolonged economic downturn, such as the global financial crisis, could result in a variety of risks to our business, including, weakened demand for our product candidates and our ability to raise additional capital when needed on acceptable terms, if at all. A weak or declining economy could also strain our suppliers, possibly resulting in supply disruption. Any of the foregoing could harm our business and we cannot anticipate all of the ways in which the current economic climate and financial market conditions could adversely impact our business.

Risks related to our common stock

We are an "emerging growth company," as defined in the JOBS Act, and we cannot be certain if the reduced disclosure requirements applicable to emerging growth companies will make our common stock less attractive to investors.

We are an emerging growth company, as defined in the JOBS Act. For as long as we continue to be an emerging growth company, we may take advantage of exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies, including, but not limited to, (1) not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act, (2) reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements and (3) exemptions from the requirements of holding a non-binding advisory vote on executive compensation.

We could be an emerging growth company through 2022, although circumstances could cause us to lose that status earlier, including if the market value of our common stock held by non-affiliates exceeds $700.0 million as of any June 30 before that time or if we have total annual gross revenue of $1.07 billion or more during any fiscal year before that time, in which cases we would no longer be an emerging growth company as of the following December 31 or, if we issue more than $1.00 billion in non-convertible debt during any three-year period before that time, we would cease to be an emerging growth company immediately. Even after we no longer qualify as an emerging growth company, we may still qualify as a "smaller reporting company" which would allow us to take advantage of many of the same exemptions from disclosure requirements, including not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act and reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements. We cannot predict if investors will find our common stock less attractive because we may rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile. When these exemptions cease to apply, we expect to incur additional expenses and devote increased management effort toward ensuring compliance with them, and we cannot predict or estimate the amount or timing of such additional costs.

Under the JOBS Act, emerging growth companies can also delay adopting new or revised accounting standards until such time as those standards apply to private companies. We have irrevocably elected not to avail ourselves of this exemption from new or revised accounting standards and, therefore, are subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

If our stock price is volatile, our stockholders could incur substantial losses.

Our stock price has been and may continue to be volatile. Since our IPO in June 2017, the price of our common stock as reported on The NASDAQ Select Global Market has ranged from a low of $12.71 on June 29, 2017 to a high of $21.01 on October 3, 2017. The market price of shares of our common stock could be subject to wide fluctuations in response to many risk factors listed in this "Risk factors" section, and others beyond our control, including:

- results and timing of preclinical studies and clinical studies of our ADC product candidates, including XMT-1522 and XMT-1536;
- results of clinical studies of our competitors' products;
- failure to adequately protect our trade secrets;
- our inability to raise additional capital and the terms on which we raise it;
- commencement or termination of any strategic partnership or licensing arrangement;
- regulatory developments, including actions with respect to our products or our competitors' products;
- actual or anticipated fluctuations in our financial condition and operating results;
- publication of research reports by securities analysts about us or our competitors or our industry;

- our failure or the failure of our competitors to meet analysts' projections or guidance that we or our competitors may give to the market;
- additions and departures of key personnel;
- strategic decisions by us or our competitors, such as acquisitions, divestitures, spin-offs, joint ventures, strategic investments or changes in business strategy;
- the passage of legislation or other regulatory developments affecting us or our industry;
- fluctuations in the valuation of companies perceived by investors to be comparable to us;
- sales of our common stock by us, our insiders or our other stockholders;
- speculation in the press or investment community;
- announcement or expectation of additional financing efforts;
- changes in market conditions for biopharmaceutical stocks; and
- changes in general market and economic conditions.

In addition, the stock market has historically experienced significant volatility, particularly with respect to pharmaceutical, biotechnology and other life sciences company stocks. The volatility of pharmaceutical, biotechnology and other life sciences company stocks often does not relate to the operating performance of the companies represented by the stock. As a result of this volatility, stockholders may not be able to sell their common stock at or above the price for which they paid for their shares. As we operate in a single industry, we are especially vulnerable to these factors to the extent that they affect our industry or our products, or to a lesser extent our markets. In the past, securities class action litigation has often been initiated against companies following periods of volatility in their stock price. This type of litigation could result in substantial costs and divert our management's attention and resources, and could also require us to make substantial payments to satisfy judgments or to settle litigation.

Our principal stockholders and management own a significant percentage of our stock and are able to exercise significant influence over matters subject to stockholder approval.

As of September 30, 2017, our executive officers, directors and stockholders who own more than 5% of our outstanding common stock, together with their respective affiliates, beneficially owned approximately 80% of our common stock, including shares subject to outstanding options and warrants that are exercisable within 60 days after such date. Accordingly, these stockholders are able to exert a significant degree of influence over our management and affairs and over matters requiring stockholder approval, including the election of our board of directors and approval of significant corporate transactions. This concentration of ownership could have the effect of entrenching our management or board of directors, delaying or preventing a change in our control or otherwise discouraging a potential acquirer from attempting to obtain control of us, which in turn could have a material and adverse effect on the fair market value of our common stock.

A significant portion of our total outstanding shares are restricted from immediate resale but may be sold into the market in the near future, which could cause the market price of our common stock to drop significantly, even if our business is doing well.

Sales of a substantial number of shares of our common stock in the public market could occur at any time after the expiration of the lock-up agreements entered into in connection with our IPO. These sales, or the market perception that the holders of a large number of shares intend to sell shares, could reduce the market price of our common stock. As of September 30, 2017, we had 22,734,333 shares of common stock outstanding. Of these shares, 17,638,212 may not be sold until December 2017 due to lock-up agreements between the holders of these shares and the underwriters for our IPO. However, J. P. Morgan Securities LLC, Cowen and Company, LLC and Leerink Partners LLC, on behalf of the

underwriters, can waive the provisions of these lock-up agreements by prior written consent and allow these stockholders to sell their shares at any time.

In addition, as of September 30, 2017, there were 3,205,714 shares subject to outstanding options that will become eligible for sale in the public market to the extent permitted by any applicable vesting requirements, the lock-up agreements and Rules 144 and 701 under the Securities Act. Moreover, upon consummation of our IPO, holders of an aggregate of 17,580,601 shares of our common stock have rights, subject to some conditions, to require us to file registration statements covering their shares or to include their shares in registration statements that we may file for ourselves or other stockholders. If such holders, by exercising their registration rights, cause a large number of securities to be registered and sold into the public market, these sales could have an adverse effect on the market price for our common stock. We also have registered all shares of common stock that we may issue under our employee benefit plans, including our 2017 Stock Incentive Plan, or our 2017 Stock Plan. Once shares are issued in accordance with the terms of the plans, they can be freely sold in the public market upon issuance, subject to the lock-up agreements and the restrictions imposed on our affiliates under Rule 144.

We are incurring significant increased costs as a result of operating as a public company, and our management is required to devote substantial time to new compliance initiatives.

As a newly public company, we are incurring significant legal, insurance, accounting and other expenses that we did not incur as a private company. In addition, the Sarbanes-Oxley Act and rules of the SEC and The NASDAQ Stock Market have imposed various requirements on public companies, including requiring establishment and maintenance of effective disclosure and financial controls. Our management and other personnel will need to devote a substantial amount of time to these compliance initiatives. Moreover, these rules and regulations have increased and will continue to increase our legal and financial compliance costs and will make some activities more time-consuming and costly.

We do not expect to pay any cash dividends for the foreseeable future.

We do not anticipate that we will pay any cash dividends to holders of our common stock in the foreseeable future. Instead, we plan to retain any earnings to maintain and expand our operations. In addition, any future debt financing arrangement may contain terms prohibiting or limiting the amount of dividends that may be declared or paid on our common stock. Accordingly, investors must rely on sales of their common stock after price appreciation, which may never occur, as the only way to realize any return on their investment.

Provisions in our amended and restated certificate of incorporation, our amended and restated by-laws and Delaware law may have anti-takeover effects that could discourage an acquisition of us by others, even if an acquisition would be beneficial to our stockholders, and may prevent attempts by our stockholders to replace or remove our current management.

Our amended and restated certificate of incorporation, amended and restated by-laws and Delaware law contain provisions that may have the effect of discouraging, delaying or preventing a change in control of us or changes in our management that stockholders may consider favorable, including transactions in which you might otherwise receive a premium for your shares. Our amended and restated certificate of incorporation and by-laws include provisions that:

- authorize “blank check” preferred stock, which could be issued by our board of directors without stockholder approval and may contain voting, liquidation, dividend and other rights superior to our common stock;
- create a classified board of directors whose members serve staggered three-year terms;
- specify that special meetings of our stockholders can be called only by our board of directors;
- prohibit stockholder action by written consent;
- establish an advance notice procedure for stockholder approvals to be brought before an annual meeting of our stockholders, including proposed nominations of persons for election to our board of directors;

- provide that vacancies on our board of directors may be filled only by a majority of directors then in office, even though less than a quorum;
- provide that our directors may be removed only for cause;
- specify that no stockholder is permitted to cumulate votes at any election of directors;
- expressly authorized our board of directors to modify, alter or repeal our amended and restated by-laws; and
- require supermajority votes of the holders of our common stock to amend specified provisions of our amended and restated certificate of incorporation and amended and restated by-laws.

These provisions, alone or together, could delay or prevent hostile takeovers and changes in control or changes in our management. These provisions could also limit the price that investors might be willing to pay in the future for shares of our common stock, thereby depressing the market price of our common stock.

In addition, because we are incorporated in the State of Delaware, we are governed by the provisions of Section 203 of the General Corporation Law of the State of Delaware, or the DGCL, which prohibits a person who owns in excess of 15% of our outstanding voting stock from merging or combining with us for a period of three years after the date of the transaction in which the person acquired in excess of 15% of our outstanding voting stock, unless the merger or combination is approved in a prescribed manner.

Any provision of our amended and restated certificate of incorporation, amended and restated by-laws or Delaware law that has the effect of delaying or deterring a change in control could limit the opportunity for our stockholders to receive a premium for their shares of our common stock, and could also affect the price that some investors are willing to pay for our common stock.

Our ability to use net operating losses and certain tax credit carryforwards may be subject to certain limitations.

Under Section 382 of the Internal Revenue Code of 1986 as amended, or the Code, a corporation that undergoes an "ownership change" is subject to limitations on its ability to utilize its net operating losses, or NOLs, or other tax attributes (including certain tax credits) to offset future taxable income or reduce tax. In general, an ownership change, as defined by Section 382 of the Code, results from transactions increasing the ownership of certain stockholders in the stock of a corporation by more than 50% over a three-year period. We have determined that, as a result of certain issuances of stock through December 31, 2015, we have experienced such ownership changes. Depending on the timing of any future utilization of our carryforwards, we may be limited as to the amount that can be utilized each year as a result of previous ownership changes. In addition, future changes in our stock ownership, including from future stock offerings, as well as other changes that may be outside of our control, could result in additional ownership changes under Section 382 of the Code. Our NOLs and other tax attributes may also be impaired under similar provisions of state law. Furthermore, our ability to utilize our NOLs and other tax attributes is conditioned upon our attaining profitability and generating U.S. federal and state taxable income. As described above under "—Risks related to our financial position and need for additional capital," we have incurred net losses since our inception and anticipate that we will continue to incur significant losses for the foreseeable future; thus, we do not know whether or when we will generate the U.S. federal and state taxable income necessary to utilize our NOLs and other tax attributes. We have recorded a full valuation allowance related to our NOLs and other deferred tax assets due to the uncertainty of the ultimate realization of the future benefits of those assets.

Our amended and restated certificate of incorporation designates the state or federal courts within the State of Delaware as the exclusive forum for certain types of actions and proceedings that may be initiated by our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers or employees.

Our amended and restated certificate of incorporation provides that, subject to limited exceptions, the state or federal courts within the State of Delaware will be exclusive forums for (1) any derivative action or proceeding brought on our behalf, (2) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers or other employees to us or our stockholders, (3) any action asserting a claim against us arising pursuant to any provision of the DGCL, our amended and restated certificate of incorporation or our amended and restated by-laws or (4) any other

action asserting a claim against us that is governed by the internal affairs doctrine. Any person or entity that purchases or otherwise acquires any interest in shares of our capital stock shall be deemed to have notice of and to have consented to the provisions of our amended and restated certificate of incorporation described above. This choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers or other employees, which may discourage such lawsuits against us and our directors, officers and employees. Alternatively, if a court were to find these provisions of our amended and restated certificate of incorporation inapplicable to, or unenforceable in respect of, one or more of the specified types of actions or proceedings, we may incur additional costs associated with resolving such matters in other jurisdictions, which could adversely affect our business and financial condition.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

Unregistered Sales of Equity Securities

On July 3, 2017, upon the closing of our initial public offering, all shares of our then-outstanding preferred stock were automatically converted into 16,154,671 shares of common stock. The issuance of such shares of common stock was exempt from the registration requirements of the Securities Act, pursuant to Section 3(a)(9) and Section 4(a)(2) of the Securities Act.

Use of Proceeds from the Sale of Registered Securities

On July 3, 2017, we closed our IPO, in which we issued and sold 5,000,000 shares of our common stock at a public offering price of $15.00 per share, for aggregate gross proceeds of $75.0 million. On August 2, 2017, we issued and sold an additional 51,977 shares of common stock at $15.00 per share for gross proceeds of $0.78 million. All of the shares issued and sold in the IPO were registered under the Securities Act pursuant to a Registration Statement on Form S-1 (File No. 333-218412), which was declared effective by the SEC on June 29, 2017.

The net offering proceeds to us upon the initial closing were, after deducting underwriting discounts and offering costs payable by us totaling $7.5 million, were approximately $67.5 million. Upon the exercise of the overallotment option by the underwriters, we received an additional $0.73 million after $0.05 million of underwriting discounts. No material offering expenses were paid directly or indirectly to any of our directors or officers (or their associates) or persons owning 10.0% or more of any class of our equity securities or to any other affiliates.

We had not used any of the net offering proceeds as of September 30, 2017. There has been no material change in our planned use of the net proceeds from our IPO as described in our final prospectus filed with the SEC pursuant to Rule 424(b)(4) on June 27, 2017.

Item 6. Exhibits.

EXHIBIT 3.1	-	Fifth Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K, filed on July 10, 2017).
EXHIBIT 3.2	-	Amended and Restated Bylaws (incorporated by reference to Exhibit 3.2 to the Company's Current Report on Form 8-K, filed on July 10, 2017).
EXHIBIT 10.1	-	Third Amendment to Amended and Restated Research Collaboration and Commercial License Agreement, dated October 30, 2017, by and between Mersana Therapeutics, Inc. and Millennium Pharmaceuticals, Inc.
EXHIBIT 31.1	-	Rule 13a—14(a) / 15d—14(a) Certifications — Chief Executive Officer.
EXHIBIT 31.2	-	Rule 13a—14(a) / 15d—14(a) Certifications — Chief Business Officer (Principal Financial Officer).
EXHIBIT 32.1	-	Section 1350 Certifications.
EXHIBIT 101.INS	-	XBRL Instance Document.
EXHIBIT 101.SCH	-	XBRL Taxonomy Extension Schema Document.
EXHIBIT 101.CAL	-	XBRL Taxonomy Extension Calculation Linkbase Document.
EXHIBIT 101.DEF	-	XBRL Taxonomy Extension Definition Linkbase Document.
EXHIBIT 101.LAB	-	XBRL Taxonomy Extension Label Linkbase Document.
EXHIBIT 101.PRE	-	XBRL Taxonomy Extension Presentation Linkbase Document.

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.

Mersana Therapeutics, Inc.

Dated: November 9, 2017

By: /s/ Anna Protopapas
Anna Protopapas
President and Chief Executive Officer

Dated: November 9, 2017

By: /s/ Eva Jack
Eva Jack
Chief Business Officer (Principal Financial Officer)

THIRD AMENDMENT TO AMENDED AND RESTATED RESEARCH COLLABORATION AND COMMERCIAL LICENSE AGREEMENT

This Third Amendment (the "**Third A&R Amendment**") to the Amended and Restated Research Collaboration and Commercial License Agreement, dated January 29, 2016, as amended from time to time (the "**Original Agreement**"), made as of this 30th day of October, 2017 (the "**Third A&R Amendment Effective Date**"), is by and between

MERSANA THERAPEUTICS, INC., a Delaware corporation, having its principal place of business at 840 Memorial Drive Cambridge, MA 02139 (hereinafter referred to as "**MTI**")

and

MILLENNIUM PHARMACEUTICALS, INC., a Delaware corporation, a wholly-owned subsidiary of Takeda Pharmaceutical Company Limited, having its principal place of business at 40 Landsdowne Street, Cambridge, MA 02139 (hereinafter referred to as "**Licensee**").

MTI and Licensee may sometimes individually be referred to hereafter as a "**Party**" or collectively as the "**Parties**".

Introduction

WHEREAS, MTI and Licensee entered into the Original Agreement, as amended by the First Amendment to the Original Agreement dated March 9, 2017 and the Second Amendment to the Original Agreement dated August 2, 2017 (together with this Third A&R Amendment, the "**Agreement**"); and

WHEREAS, MTI and Licensee wish to amend the Original Agreement as set forth in this Third A&R Amendment to set forth a process that permits research activities be conducted by the Parties following expiration of any Research Program Term on the terms set forth below.

NOW, THEREFORE, in consideration of the mutual covenants contained herein, and further good and valuable consideration, MTI and Licensee agree to amend the Original Agreement as follows:

Article 1.
Amendments

Section 1.1. **Existing Definitions**. Terms used herein without further definition shall have the same meanings ascribed to them as in the Agreement.

Section 1.2. **New Definitions**. The following new definitions are hereby added to Article 1 of the Original Agreement in alphabetical order:

(a) "**Subsequent Research Program**" has the meaning set forth in Section 2.3.

(b) "**Subsequent Research Program Notice**" has the meaning set forth in Section 2.3.

(c) "**Subsequent Research Program Plan**" has the meaning set forth in Section 2.3.

(d) "**Third A&R Amendment**" means the Third A&R Amendment to this Agreement, dated as of the Third A&R Amendment Effective Date.

(e) "**Third A&R Amendment Effective Date**" means October 30, 2017.

Section 1.3. **Activities Conducted Following Expiration of a Research Program Term for any Designated Target Antigen**. Five sentences shall be added to the end of Section 2.3 of the Original Agreement as follows:

"Notwithstanding anything to the contrary in this Section 2.3, following the expiration or termination of the Research Program Term for any Designated Target Antigen, Licensee may request in writing at any time during the Term (a "**Subsequent Research Program Notice**") that MTI conduct certain research activities related to such Designated Target Antigen (a "**Subsequent Research Program**"). Following MTI's receipt of the Subsequent Research Program Notice, the Parties shall work in good faith to mutually agree upon a written work plan (a "**Subsequent Research Program Plan**") setting forth at a minimum: (a) the activities to be conducted under the Subsequent Research Program and the timeline for completion of such activities, as appropriate and (b) the reasonable fees (and the associated payment schedule therefore), if any, that the Parties mutually agree that Licensee will pay to MTI to conduct such Subsequent Research Program. For clarity, "reasonable fees" may consist of: (a) Supply Fees, (b) FTE Fees, (c) a combination of the foregoing (a) and (b), and/or (d) some other consideration as reasonably determined by the Parties. If the Parties mutually agree upon a Subsequent Research Program Plan, then except as expressly set forth therein, such Subsequent Research Program Plan and Subsequent Research Program shall be deemed for all purposes to be governed by the terms and conditions of the Agreement, including but not limited to Article 10 and Article 11 of the Agreement, as if such Subsequent Research Program was part of the original applicable Research Program and such Subsequent Research Program Plan was conducted during the applicable Research Program Term. Notwithstanding the foregoing, neither Party shall have any obligations to the other Party to perform work related to a Subsequent Research Program if the Parties fail to mutually agree upon a Subsequent Research Program Plan."

Article 2.
Miscellaneous

Section 2.1. **Effectiveness**. Except as set forth in this Third A&R Amendment, all terms and conditions of the Original Agreement are hereby ratified and shall remain in full force and effect. Amendments made pursuant to this Third A&R Amendment shall be effective as of the Third A&R Amendment Effective Date.

Section 2.2. **Conflicts**. In the event of a conflict between a provision of the Original Agreement and a provision of this Third A&R Amendment, the provisions of this Third A&R Amendment shall control to the extent of such conflict.

Section 2.3. **Counterparts**. This Third A&R Amendment may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Counterparts may be signed or delivered by facsimile or electronically scanned signature page.

[Remainder of Page Left Intentionally Blank. Signature Page to Follow]

IN WITNESS WHEREOF, the Parties have executed this Third A&R Amendment to the Amended and Restated Research Collaboration and Commercial License Agreement to be effective as of the Third A&R Amendment Effective Date.

MERSANA THERAPEUTICS, INC.

By: /s/

Name: Eva Jack

Title: Chief Business Officer

MILLENNIUM PHARMACEUTICALS, INC.

By: /s/

Name: Dan Curran

Title: Head of External Innovation

Exhibit 31.1

Certification of Principal Executive Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of Sarbanes-Oxley Act of 2002

I, Anna Protopapas, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Mersana Therapeutics, Inc.;

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 officer(s) 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)) for the registrant and 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) 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

   c) 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 (the registrant's fourth fiscal quarter in the case of an annual report), 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(s) 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.

Mersana Therapeutics, Inc.

/s/ Anna Protopapas
Anna Protopapas
President and Chief Executive Officer

Dated: November 9, 2017

Exhibit 31.2

Certification of Principal Financial Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of Sarbanes-Oxley Act of 2002

I, Eva Jack, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Mersana Therapeutics, Inc.;

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 officer(s) 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)) for the registrant and 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) 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

   c) 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 (the registrant's fourth fiscal quarter in the case of an annual report), 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(s) 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.

Mersana Therapeutics, Inc.

/s/ Eva Jack
Eva Jack
Chief Business Officer (Principal Financial Officer)

Dated: November 9, 2017

Exhibit 32.1

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report on Form 10-Q of Mersana Therapeutics, Inc. (the "Company") for the quarter ended September 30, 2017 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), each of the undersigned officers of the company, hereby certifies, pursuant to Section 1350 of Chapter 63 of Title 18, United States Code, that to the best of her knowledge:

(1) the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

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

Dated: November 9, 2017

/s/ Anna Protopapas
Anna Protopapas
President and Chief Executive Officer

Dated: November 9, 2017

/s/ Eva Jack
Eva Jack
Chief Business Officer
(Principal Financial Officer)