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

FORM 10-Q

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

For the quarterly period ended March 31, 2020
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)

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

Title of each class	Trading symbol(s)	Name of each exchange on which registered
Common Stock, $0.0001 par value	MRSN	The Nasdaq Global Select Market

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

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

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

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

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

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

There were 58,949,470 shares of Common Stock ($0.0001 par value per share) outstanding as of May 5, 2020.

Unless otherwise stated or the context requires otherwise, all references to "us," "our," "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 "aim," "anticipate," "believe," "contemplate," "continue," "could," "estimate," "expect," "goal," "intend," "may," "on track," "plan," "possible," "potential," "predict," "project," "seek," "should," "target," "will," "would" 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 and preclinical and clinical studies;
- the timing of, and our ability to obtain and maintain, regulatory approvals for our product candidates;
- unmet need of ovarian cancer and non-small cell lung cancer;
- our ability to quickly and efficiently identify and develop additional product candidates;
- our ability to advance any product candidate into, and successfully complete clinical studies;
- our intellectual property position, including with respect to our trade secrets;
- the potential benefits of strategic partnership agreements and our ability to enter into selective strategic partnerships;
- our estimates regarding expenses, future revenues, capital requirements, the sufficiency of our current and expected cash resources and our need for additional financing; and
- the potential impact of the ongoing COVID-19 pandemic.

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 our Annual Report on Form 10-K for the year ended December 31, 2019 and in this Quarterly Report on Form 10-Q, particularly in the "Risk Factors" sections, 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.

In addition, while we expect that the COVID-19 pandemic might adversely affect our preclinical and clinical development efforts, business operations and financial results, the extent of the impact and the value of and market for our common stock will depend on future developments that are highly uncertain and cannot be predicted with confidence at this time, such as the ultimate duration of the pandemic, travel restrictions, quarantines, physical distancing and business closure requirements in the U.S. and in other countries, and the effectiveness of actions taken globally to contain and treat the disease.

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. 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.

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PART I – FINANCIAL INFORMATION

Item 1. Financial Statements

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

	March 31, 2020	December 31, 2019
Assets		
Current assets:		
Cash and cash equivalents	$ 60,450	$ 62,351
Short-term marketable securities	17,976	37,439
Prepaid expenses and other current assets	1,866	1,536
Total current assets	80,292	101,326
Property and equipment, net	1,979	2,164
Operating lease right-of-use assets	12,134	2,598
Other assets	1,453	1,453
Total assets	$ 95,858	$ 107,541
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$ 4,603	$ 7,296
Accrued expenses	5,678	8,986
Deferred revenue	4,804	4,815
Operating lease liabilities	1,150	2,219
Short-term debt	1,167	667
Other liabilities	88	87
Total current liabilities	17,490	24,070
Operating lease liabilities	11,295	677
Long-term debt, net	3,732	4,201
Other liabilities	250	275
Total liabilities	32,767	29,223
Commitments (Note 12)		
Stockholders' equity:		
Preferred stock, $0.0001 par value; 25,000,000 shares authorized; 0 shares issued and outstanding at March 31, 2020 and December 31, 2019, respectively	—	—
Common stock, $0.0001 par value; 175,000,000 shares authorized; 48,006,049 and 45,388,023 shares issued and outstanding at March 31, 2020 and December 31, 2019, respectively	5	5
Additional paid-in capital	272,390	270,662
Accumulated other comprehensive income (loss)	(4)	25
Accumulated deficit	(209,300)	(192,374)
Total stockholders' equity	63,091	78,318
Total liabilities and stockholders' equity	$ 95,858	$ 107,541

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

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

	Three months ended March 31,	
	2020	2019
Collaboration revenue	$ 11	$ 41,035
Operating expenses:		
Research and development	12,219	15,143
General and administrative	4,936	4,443
Total operating expenses	17,155	19,586
Other income (expense):		
Interest income	306	452
Interest expense	(88)	—
Total other income (expense), net	218	452
Net income (loss)	(16,926)	21,901
Other comprehensive income (loss):		
Unrealized gain (loss) on marketable securities	(29)	8
Comprehensive income (loss)	$ (16,955)	$ 21,909
Net income (loss) attributable to common stockholders — basic and diluted	$ (16,926)	$ 21,901
Net income (loss) per share attributable to common stockholders — basic	$ (0.35)	$ 0.72
Net income (loss) per share attributable to common stockholders — diluted	$ (0.35)	$ 0.70
Weighted-average number of shares of common stock used in net income (loss) per share attributable to common stockholders — basic	47,988,630	30,299,650
Weighted-average number of shares of common stock used in net income (loss) per share attributable to common stockholders — diluted	47,988,630	31,461,696

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

Mersana Therapeutics, Inc.
Condensed Consolidated Statements of Stockholders' Equity
(in thousands, except share data)
(unaudited)

	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Stockholders' Equity
	Shares	Amount				
Balance at December 31, 2018	23,234,472	$ 3	$ 172,966	$ (8)	$ (164,166)	$ 8,795
Exercise of stock options	12,192	—	42	—	—	42
Issuance of common stock under public offering, net of issuance costs of $5,587	24,437,500	2	92,160	—	—	92,162
Stock-based compensation expense	—	—	1,164	—	—	1,164
Other comprehensive income	—	—	—	8	—	8
Net income	—	—	—	—	21,901	21,901
Balance at March 31, 2019	47,684,164	5	266,332	—	(142,265)	124,072
Exercise of stock options	32,693	—	58	—	—	58
Purchase of common stock under ESPP	82,281	—	283	—	—	283
Stock-based compensation expense	—	—	1,161	—	—	1,161
Other comprehensive income	—	—	—	11	—	11
Net loss	—	—	—	—	(17,071)	(17,071)
Balance at June 30, 2019	47,799,138	5	267,834	11	(159,336)	108,514
Exercise of stock options and warrants	83,759	—	21	—	—	21
Stock-based compensation expense	—	—	1,285	—	—	1,285
Other comprehensive income	—	—	—	17	—	17
Net loss	—	—	—	—	(16,792)	(16,792)
Balance at September 30, 2019	47,882,897	5	269,140	28	(176,128)	93,045
Retirement of common stock in exchange for common stock warrant	(2,575,000)	—	(8,986)	—	—	(8,986)
Issuance of common stock warrant in exchange for retirement of common stock	—	—	8,986	—	—	8,986
Purchase of common stock under ESPP	57,792	—	206	—	—	206
Exercise of stock options and warrants	22,334	—	54	—	—	54
Stock-based compensation expense	—	—	1,262	—	—	1,262
Other comprehensive loss	—	—	—	(3)	—	(3)
Net loss	—	—	—	—	(16,246)	(16,246)
Balance at December 31, 2019	45,388,023	5	270,662	25	(192,374)	78,318
Exercise of common stock warrant in exchange for common stock	2,574,971	—	—	—	—	—
Exercise of stock options and warrants	43,055	—	119	—	—	119
Stock-based compensation expense	—	—	1,609	—	—	1,609
Other comprehensive loss	—	—	—	(29)	—	(29)
Net loss	—	—	—	—	(16,926)	(16,926)
Balance at March 31, 2020	48,006,049	$ 5	$ 272,390	$ (4)	$ (209,300)	$ 63,091

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

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

	Three months ended March 31,	
	2020	**2019**
Cash flows from operating activities		
Net income (loss)	$ (16,926)	$ 21,901
Adjustments to reconcile net income (loss) to net cash used in operating activities:		
Depreciation	248	337
Net amortization of premiums and discounts on investments	(66)	4
Stock-based compensation	1,609	1,164
Other non-cash items	37	26
Changes in operating assets and liabilities:		
Accounts receivable	—	(9)
Prepaid expenses and other current assets	(330)	389
Accounts payable	(2,693)	(3,444)
Accrued expenses	(3,128)	(4,463)
Operating lease assets	444	—
Operating lease liabilities	(430)	—
Deferred revenue	(11)	(40,592)
Net cash used in operating activities	(21,246)	(24,687)
Cash flows from investing activities		
Maturities of marketable securities	19,500	10,500
Purchase of property and equipment	(65)	(372)
Net cash provided by investing activities	19,435	10,128
Cash flows from financing activities		
Net proceeds from public offering of common stock	—	92,162
Proceeds from exercise of stock options	119	42
Payments from issuance of debt	(180)	—
Payments under capital lease obligations	(29)	—
Net cash provided by (used in) financing activities	(90)	92,204
Increase (decrease) in cash, cash equivalents and restricted cash	(1,901)	77,645
Cash, cash equivalents and restricted cash, beginning of period	62,672	60,005
Cash, cash equivalents and restricted cash, end of period	$ 60,771	$ 137,650
Supplemental disclosures of non-cash activities:		
Purchases of property and equipment in accounts payable and accrued expenses	$ —	$ 26
Cash paid for interest	$ 56	$ —
Right-of-use assets obtained in exchange for operating lease liabilities	$ 9,980	$ 4,369
Right-of-use assets obtained in exchange for financing lease liabilities	$ —	$ 429

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

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

1. Nature of business and basis of presentation

Mersana Therapeutics, Inc. is 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. The Company has leveraged 20 years of industry learning in the ADC field to develop proprietary and differentiated technology platforms that enable it to design ADCs to have improved efficacy, safety and tolerability relative to existing ADC therapies. The Company's innovative platforms which include Dolaflexin and Dolasynthen, each delivering its DolaLock payload, as well as Immunosynthen, delivering a novel stimulator of interferon genes (STING) agonist, provide an efficient product engine that has enabled a robust discovery pipeline for the Company and its partners. The Company's product candidates include XMT-1536 and XMT-1592. XMT-1536, an ADC utilizing the Company's Dolaflexin platform and targeting NaPi2b, an antigen broadly expressed in ovarian cancer and non-small cell lung cancer (NSCLC) adenocarcinoma is currently in the expansion portion of a Phase 1 study in patients with ovarian cancer and NSCLC adenocarcinoma. XMT-1592 uses one of the Company's new platforms, Dolasynthen, and also targets NaPi2b. The Company filed an Investigational New Drug (IND) application in the first quarter of 2020, which was approved by the U.S. Food and Drug Administration (FDA). The Company remains on track to initiate the Phase 1 dose escalation study of XMT-1592 in the second quarter of 2020.

The Company has incurred cumulative net losses since inception. For the three months ended March 31, 2020, the net loss was $16,926, compared to net income of $21,901 in the three months ended March 31, 2019. The difference year over year is primarily attributable to $39,965 in revenue that was recognized in the first quarter of 2019 as a result of the discontinuation of the partnership with Takeda in the first quarter of 2019. The Company expects to continue to incur operating losses for at least the next several years. As of March 31, 2020, the Company had an accumulated deficit of $209,300. The future success of the Company is dependent on, among other factors, 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. Net losses and negative operating cash flows have had, and will continue to have, an adverse effect on the Company's stockholders' equity and working capital.

On April 7, 2020, the Company sold 8,938,599 and 1,962,000 shares of common stock at $5.59 per share and $7.74 per share, respectively, to raise gross proceeds of $65,153 through its at-the-market equity offering program (ATM). The Company believes that its currently available funds will be sufficient to fund the Company's operations through at least the next twelve months from the issuance of this Quarterly Report on Form 10-Q. Management's belief with respect to its ability to fund operations is based on estimates that are subject to risks and uncertainties. If actual results are different from management's estimates, the Company may need to seek additional funding.

The Company is subject to risks common to companies in the biotechnology industry, including but not limited to, the need for additional capital, risks of failure of preclinical and clinical studies, the need to obtain marketing approval and reimbursement 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 the ability to transition from pilot-scale production to large-scale manufacturing of products.

The Company's unaudited 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). All dollar amounts, except per share data in the text and tables herein, are stated in thousands unless otherwise indicated. Certain information and footnote disclosures normally included in annual 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

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

ended December 31, 2019 and the notes thereto, included in the Company's Annual Report on Form 10-K for the year ended December 31, 2019 filed with the SEC on February 28, 2020.

The unaudited condensed 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 condensed consolidated financial statements contain all adjustments that are necessary to present fairly the Company's financial position as of March 31, 2020, the results of its operations for the three months ended March 31, 2020 and 2019, a statement of stockholders' equity for the three months ended March 31, 2020 and 2019 and cash flows for the three months ended March 31, 2020 and 2019. Such adjustments are of a normal and recurring nature. The results for the three months ended March 31, 2020 are not necessarily indicative of the results for the year ending December 31, 2020, or for any future period.

2. Summary of Significant Accounting Policies

Principles of Consolidation

The accompanying unaudited condensed consolidated financial statements include those of the Company and its wholly-owned subsidiary, Mersana Securities Corp. All intercompany balances and transactions have been eliminated.

Use of Estimates

The preparation of the Company's unaudited condensed 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 identification of performance obligations and standalone selling prices of those performance obligations within its revenue arrangements, accrued expenses, valuation of stock-based awards and income taxes. Actual results could differ from those estimates.

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, or decision making group, in deciding how to allocate resources and assess performance. The Company views its operations and manages its business as a single operating segment, which is the business of discovering and developing ADCs.

Summary of Accounting Policies

The significant accounting policies used in preparation of these condensed consolidated financial statements for the three months ended March 31, 2020 are consistent with those discussed in Note 2 to the consolidated financial statements in the Company's 2019 Annual Report on Form 10-K.

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.

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

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.

	Three months ended March 31, 2020		Three months ended March 31, 2019	
	Beginning of period	End of period	Beginning of period	End of period
Cash and cash equivalents	$ 62,351	$ 60,450	$ 59,634	$ 137,279
Restricted cash included in other assets, noncurrent	321	321	371	371
Total cash, cash equivalents and restricted cash per statement of cash flows	$ 62,672	$ 60,771	$ 60,005	$ 137,650

Marketable Securities

Short-term marketable securities consist of investments in debt securities with maturities greater than three months and less than one year from the balance sheet date. 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 accumulated comprehensive income (loss) as a component of stockholders' equity until realized. Realized gains and losses and declines in value judged to be other than temporary are included as a component of other income (expense), net, based on the specific identification method. When determining whether a decline in value is other than temporary, the Company considers various factors, including whether the Company has the intent to sell the security, and whether it is more likely than not that the Company will be required to sell the security prior to recovery of its amortized cost basis. Fair value is determined based on quoted market prices.

Other Assets

The Company recorded other assets of $1,453 as of March 31, 2020 and December 31, 2019, comprised of restricted cash of $321 held as security deposits for a standby letter of credit related to a facility lease and $1,132 held by a service provider.

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 shares of common stock outstanding during the period, without further 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 shares of common stock and potentially dilutive securities outstanding for the period determined using the treasury stock and if-converted methods.

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

For purposes of the diluted net loss per share calculation, stock options, unvested restricted stock units (RSUs) and 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. Therefore, basic and diluted net loss per share were the same for the three months ended March 31, 2020.

The following table sets forth the outstanding potentially dilutive securities that have been excluded from the calculation of diluted net loss per share for the period ended March 31, 2020, because to include them would be anti-dilutive (in common stock equivalent shares):

	Three months ended March 31, 2020
Stock options	6,049,288
Restricted stock units	760,193
Warrants	39,474
	6,848,955

For the three months ended March 31, 2019, the Company reported net income. Diluted earnings per share was computed using the "treasury method" by dividing the net income by the weighted-average number of shares of common stock and potentially dilutive securities outstanding during the period. The weighted-average number of shares of common stock were adjusted for the potential dilutive effect of the exercise of stock options and warrants to purchase common stock. Refer to Note 7 “Earnings per share”.

Recently Issued Accounting Pronouncements

In November 2018, the FASB issued ASU No. 2018-18, *Collaborative Arrangements (Topic 808):Clarifying the Interaction between Topic 808 and Topic 606*. The main provisions of ASU 2018-18 include: (i) clarifying that certain transactions between collaborative arrangement participants should be accounted for as revenue when the collaborative arrangement participant is a customer in the context of a unit of account and (ii) precluding the presentation of transactions with collaborative arrangement participants that are not directly related to sales to third parties together with revenue. This guidance is effective for annual reporting periods beginning after December 15, 2019, including interim periods within those annual reporting periods, and early adoption is permitted. The guidance per ASU 2018-18 is to be adopted retrospectively to the date of initial application of Topic 606. The Company adopted the new standard effective January 1, 2020. The adoption of this standard did not have a material impact on the Company’s consolidated financial statements and related disclosures.

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments-Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*, which requires that financial assets measured at amortized cost be presented at the net amount expected to be collected. Currently, U.S. GAAP delays recognition of the full amount of credit losses until the loss is probable of occurring. Under this ASU, the income statement will reflect an entity’s current estimate of all expected credit losses. The measurement of expected credit losses will be based upon historical experience, current conditions, and reasonable and supportable forecasts that affect the collectability of the reported amount. Credit losses relating to available-for-sale debt securities will be recorded through an allowance for credit losses rather than as a direct write-down of the security. This ASU is effective for annual periods beginning after December 15, 2019, including interim periods within those annual reporting periods, and early adoption is permitted. The Company adopted the new standard effective January 1, 2020 using the modified retrospective method. The adoption of this standard did not have a material impact on the Company’s consolidated financial statements and related disclosures.

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

3. Collaboration agreements

Merck KGaA

In June 2014, the Company entered into a Collaboration and Commercial License Agreement with Merck KGaA (the Merck KGaA Agreement). 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. All six targets were designated prior to 2018. The Company is eligible to receive milestones under the Merck KGaA Agreement. The next potential milestone payment is a development milestone of $500 on Merck KGaA's designation of a preclinical development candidate for any target. Revenue for the milestone is fully constrained until it is certain the milestone would be achieved.

Under the terms of the Merck KGaA 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 May 2018, the Company entered into a Supply Agreement with Merck KGaA (the Merck KGaA Supply Agreement). Under the terms of the Merck KGaA Supply Agreement, the Company will provide Merck KGaA preclinical non-GMP ADC Drug Substance and clinical GMP Drug Substance for use in clinical trials associated with one of the antibodies designated under the Merck KGaA Agreement. The Company receives fees for its efforts under the Merck KGaA Supply Agreement and reimbursement equal to the supply cost. The Company may also enter into future supply agreements to provide clinical supply material should Merck KGaA pursue clinical development of any other candidates nominated under the Merck KGaA Agreement.

Accounting Analysis

The Company identified the following performance obligations under the Merck KGaA agreement: (i) exclusive license and research services for six designated targets, (ii) rights to future technological improvements and (iii) participation of project team leaders and providing joint research committee services.

The Company is recognizing revenue related to the exclusive license and research and development services over the estimated period of the research and development services using a proportional performance model. The Company measures proportional performance based on the costs incurred relative to the total costs expected to be incurred. To the extent that the Company receives fees for the research services as they are performed, these amounts are recorded as deferred revenue. Revenue related to future technological improvements and joint research committee services will be recognized ratably over the respective performance period (which in the case of the joint research committee services approximates the time and cost incurred each period), which are 10 and five years, respectively. The Company is continuing to reassess the estimated remaining term at each subsequent reporting period.

For the three months ended March 31, 2020 and 2019, the Company recorded collaboration revenue of $11 and $18, respectively, related to its efforts under the Merck KGaA Agreement. During the three months ended March 31, 2020 and 2019, the Company recognized $0 and $1,037, respectively, in collaboration revenue and corresponding research and development expense related to the Merck KGaA Supply Agreement.

As of March 31, 2020 and December 31, 2019, the Company had $4,804 and $4,815, respectively, in deferred revenue related to the Merck KGaA Agreement and Merck KGaA Supply Agreement that will be recognized over the remaining performance period.

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

Takeda XMT-1522 Strategic Partnership

In January 2016, the Company entered into a Development Collaboration and Commercial License Agreement with Takeda's 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 was responsible for conducting certain Phase 1 development activities for XMT-1522, including the ongoing Phase 1 clinical trial, at its own expense. The parties agreed to collaborate on the further development of XMT-1522 in accordance with a global development plan (Post-Phase 1 Development). On January 2, 2019, the Company received notice from Takeda stating that Takeda was exercising its right to terminate the XMT-1522 Agreement upon 30 days' prior written notice. The XMT-1522 Agreement terminated in accordance with its provisions, and the Company and Takeda wound down activities related to the XMT-1522 Agreement as of March 31, 2019. Under the XMT-1522 Agreement, the Company and Takeda shared equally all Post-Phase 1 Development costs through the date of termination and for a period of 30 days after the effective termination date.

For the applicable period within the three months ended March 31, 2019, the Company was billed $200 by Takeda, representing the Company's share of Post-Phase 1 Development costs incurred by Takeda. This amount has been reflected as research and development costs in the consolidated statement of operations.

Takeda strategic research and development partnership

In March 2014, the Company entered into a Research Collaboration and Commercial License Agreement with Takeda through Takeda's wholly owned subsidiary, Millennium Pharmaceuticals, Inc. (the 2014 Agreement). The 2014 Agreement was amended in January 2015 and amended and restated in January 2016 (the 2016 Restated Agreement). The agreements provided Takeda with the right to develop ADCs directed to a total of seven exclusive targets, designated by Takeda, over a specified period of time. On January 2, 2019, the Company received notice from Takeda stating that Takeda was exercising its right to terminate the 2016 Restated Agreement upon 45 days' prior written notice. The 2016 Restated Agreement terminated in accordance with its provisions, and the Company and Takeda wound down activities related to the 2016 Restated Agreement as of March 31, 2019.

During the applicable period within the three months ended March 31, 2019, the Company billed Takeda $195 related to ASC 808 costs.

Accounting Analysis

The Company's collaboration agreements with Takeda were terminated following receipt of written notices during the first quarter of 2019. As there are no further performance obligations, the Company recognized the remaining deferred revenue of $39,965 related to the termination of the Takeda agreements in the first quarter of 2019.

Included in accounts payable as of March 31, 2020 and December 31, 2019 was $2,335 related to the Takeda agreements.

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

Summary of Contract Assets and Liabilities

The following table presents changes in the balances of our contract assets and liabilities during the three months ended March 31, 2020 and 2019:

	Balance at Beginning of Period	Additions	Deductions	Balance at End of Period
Three months ended March 31, 2020				
Contract assets	$ —	$ —	$ —	$ —
Contract liabilities:				
Deferred revenue	$ 4,815	$ —	$ 11	$ 4,804

	Balance at Beginning of Period	Additions	Deductions	Balance at End of Period
Three months ended March 31, 2019				
Contract assets	$ —	$ —	$ —	$ —
Contract liabilities:				
Deferred revenue	$ 46,196	$ —	$ 40,592	$ 5,604

During the three months ended March 31, 2020 and 2019, the Company recognized the following revenues as a result of changes in the contract asset and the contract liability balances in the respective periods:

	Three months ended March 31,	
	2020	2019
Revenue recognized in the period from:		
Amounts included in the contract liability at the beginning of the period	$ 11	$ 40,592
Performance obligations satisfied in previous periods	$ —	$ —

Other Revenue

The Company has provided limited services for a collaboration partner, Asana BioSciences. For the three months ended March 31, 2020 the Company did not recognize any revenue related to these services and for the three months ended March 31, 2019, the Company recognized $15 of revenue related to these services. The Company did not recognize any revenue related to milestones in the three months ended March 31, 2020 and 2019. The next potential milestone the Company is eligible to receive is $2,500 upon dosing the fifth patient in a Phase 1 clinical study by Asana BioSciences. As of March 31, 2020, the Company considers this next milestone to be fully constrained as there is considerable judgment involved in determining whether it is probable that a significant revenue reversal would occur. As part of its evaluation of the constraint, the Company considered numerous factors, including the fact that achievement of the milestone is outside the control of the Company and there is a high level of uncertainty in achieving this milestone, as this would require initiation of clinical trials by the collaboration partner. The Company reevaluates the probability of achievement of a milestone subject to constraint at each reporting period and as uncertain events are resolved or other changes in circumstances occur.

Mersana Therapeutics, Inc.
Notes to condensed consolidated financial statements (continued)
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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 March 31, 2020 and December 31, 2019:

	Fair Value	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
March 31, 2020				
Marketable securities:				
Commercial paper	$ 5,983	$ —	$ 5,983	$ —
Corporate bonds	11,993	—	11,993	—
	$ 17,976	$ —	$ 17,976	$ —

	Fair Value	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
December 31, 2019				
Marketable securities:				
Commercial paper	$ 11,940	$ —	$ 11,940	$ —
Corporate bonds	12,010	—	12,010	—
U.S. Treasuries	13,489	13,489	—	—
	$ 37,439	$ 13,489	$ 23,950	$ —

There were no changes in valuation techniques or transfers between fair value measurement levels during the three months ended March 31, 2020 and 2019.

The carrying amounts reflected in the consolidated balance sheets for prepaid expenses and other current assets, accounts payable and accrued expenses approximate their fair values due to their short-term nature.

As of March 31, 2020, the carrying value of the Company’s outstanding borrowing under the Credit Facility approximated fair value (a Level 2 fair value measurement), reflecting interest rates currently available to the Company. The Credit Facility is discussed in more detail in Note 8, “Debt”.

5. Marketable securities

The following table summarizes marketable securities held at March 31, 2020 and December 31, 2019:

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
March 31, 2020				
Commercial paper	$ 5,983	$ —	$ —	$ 5,983
Corporate bonds	11,997	—	(4)	11,993
	$ 17,980	$ —	$ (4)	$ 17,976

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Notes to condensed consolidated financial statements (continued)
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	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
December 31, 2019				
Commercial paper	$ 11,940	$ —	$ —	$ 11,940
Corporate bonds	11,990	20	—	12,010
U.S. Treasuries	13,484	5	—	13,489
	$ 37,414	$ 25	$ —	$ 37,439

As of March 31, 2020, the Company held three securities that were in an unrealized loss position. The aggregate fair value of securities held by the Company in an unrealized loss position at March 31, 2020 was $8,993. These securities were in a gain position as of December 31, 2019. The Company determined that there was no material change in the credit risk of these securities. The Company does not intend to sell these securities and it is not more likely than not that the Company will be required to sell these securities before recovery of their amortized cost bases, which may be at maturity.

The Company has reviewed securities in an unrealized loss position at the individual security level and evaluated current expected credit loss by considering factors such as the nature of the investments, historical experience, market data, issuer-specific factors, and current economic conditions. During the three months ended March 31, 2020, the Company recognized no year-to-date credit loss related to short term marketable securities, and had no allowance for credit loss recorded as of March 31, 2020.

6. Accrued expenses

Accrued expenses consisted of the following as of March 31, 2020 and December 31, 2019:

	March 31, 2020	December 31, 2019
Accrued payroll and related expenses	$ 1,549	$ 4,037
Accrued preclinical, manufacturing and clinical expenses	3,367	4,230
Accrued professional fees	716	675
Accrued other	46	44
	$ 5,678	$ 8,986

7. Earnings per share

The following table presents the calculation of basic and diluted net income per share:

	Three months ended March 31,	
	2020	2019
Numerator:		
Net income (loss)	$ (16,926)	$ 21,901
Denominator:		
Weighted-average number of shares - basic	47,988,630	30,299,650
Dilutive securities - share-based awards	—	1,052,730
Dilutive securities - common stock warrants	—	109,316
Weighted-average number of shares - diluted	47,988,630	31,461,696
Net income (loss) per share - basic	$ (0.35)	$ 0.72
Net income (loss) per share - diluted	$ (0.35)	$ 0.70

Mersana Therapeutics, Inc.
Notes to condensed consolidated financial statements (continued)
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Anti-dilutive stock-based awards excluded from the calculation of diluted EPS for the three months ended March 31, 2019 were 2,686,700.

For the three months ended March 31, 2020, potentially dilutive securities were excluded from the calculation of diluted net loss per share because their effect would be anti-dilutive, therefore basic and diluted net loss per share were the same for the three months ended March 31, 2020.

8. Debt

On May 8, 2019, the Company entered into a loan and security agreement (the Credit Facility) with Silicon Valley Bank (SVB) pursuant to which the Company can borrow, at its option, up to $20,000, in up to four principal advances of at least $5,000 each (each, a Term Loan or collectively, the Term Loans) through August 31, 2020. The Company drew $5,000 on the Term Loan upon execution of the Credit Facility.

In the event the Company has not borrowed a total of $20,000 upon the earlier of August 21, 2020, acceleration of the Company's payment obligations or Company's prepayment of the then extended Term Loans, the Company is required to pay an additional fee equal to 3.0% of any unborrowed portion of the committed funding (the Unused Term Loan Commitment Fee).

As of March 31, 2020, the Company was in compliance with all covenants under the Credit Facility. As such, as of March 31, 2020, the classification of the loan balance as stated on the balance sheet was based on the timing of defined future payment obligations.

As of March 31, 2020, the Company had drawn a Term Loan of $5,000.

As of March 31, 2020, debt consisted of the following:

	March 31, 2020
Total debt	$ 5,000
Less: Current portion of long-term-debt	(1,167)
Total debt, net of current portion	3,833
Debt financing costs, net of accretion	(163)
Accretion related to final payment	62
Long-term debt, net	$ 3,732

As of March 31, 2020, the estimated future principal payments due are as follows:

2020 (excluding the three months ended March 31, 2020)	$ 667
2021	2,000
2022	2,000
2023	333
Total debt	$ 5,000

During the three months ended March 31, 2020, the Company recognized $51 of interest expense related to the Credit Facility.

Mersana Therapeutics, Inc.
Notes to condensed consolidated financial statements (continued)
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9. Stockholders' equity

Preferred stock

As of March 31, 2020, the Company had 25,000,000 shares of authorized preferred stock. No shares of preferred stock have been issued.

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 (the Board).

At March 31, 2020 and December 31, 2019, there were 6,848,955 and 7,782,582, respectively, shares of common stock reserved for the exercise of outstanding stock options, restricted stock units and warrants.

	March 31, 2020	December 31, 2019
Stock options	6,049,288	4,720,772
Restricted stock units	760,193	447,336
Warrants	39,474	39,474
Exchange warrants	—	2,575,000
	6,848,955	7,782,582

At-the-market equity offering program

On July 2, 2018, the Company established an at-the-market equity offering program (ATM) pursuant to which it is able to offer and sell up to $75,000 of its common stock from time to time at prevailing market prices. As of March 31, 2020, the Company had not sold any shares under the ATM.

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. As of March 31, 2020, there were warrants to purchase 39,474 shares of common stock.

Exchange Warrants

On November 26, 2019, the Company entered into an exchange agreement with entities affiliated with Biotechnology Value Fund, L.P. (the "Exchanging Stockholders"), pursuant to which the Exchanging Stockholders exchanged an aggregate of 2,575,000 shares of common stock for warrants (the "Exchange Warrants") to purchase an aggregate of 2,575,000 shares of common stock (subject to adjustment in the event of any stock dividends and splits, reverse stock split, merger or consolidation, change of control, reorganization or similar transaction, as described in the Exchange Warrants), with an exercise price of $0.0001 per share.

On March 2, 2020, the Exchanging Stockholders exercised the Exchange Warrants in full on a net cashless exercise basis, resulting in the issuance of 2,574,971 shares of common stock.

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Notes to condensed consolidated financial statements (continued)
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10. Stock options

Stock option plans

In June 2017 the Company's shareholders approved the 2017 Stock Incentive Plan (the 2017 Plan). Under the 2017 Plan, up to 2,255,000 shares of common stock were initially available to be granted to the Company's employees, officers, directors, consultants and advisors in the form of options, restricted stock units (RSUs) or other stock-based awards. The number of shares of common stock issuable under the 2017 Plan will be cumulatively increased annually by 4% of the outstanding shares or such lesser amount specified by the Board. The terms of the awards are determined by the Board, subject to the provisions of the 2017 Plan. Any cancellations under the 2007 Plan, which expired in June 2017, would increase the number of shares that could be granted under the 2017 Plan. In January 2020, the number of shares of common stock issuable under the 2017 Plan was increased by 1,815,520 shares. As of March 31, 2020, there were 1,642,679 shares available for future issuance under the 2017 Plan.

With respect to incentive stock options, the exercise price per share will equal the fair market value of the common stock on the date of grant, 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 2017 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.

Stock option activity

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

	Number of Shares	Weighted-Average Exercise Price
Outstanding at January 1, 2020	4,720,772	$ 5.24
Granted	1,412,653	6.10
Exercised	(43,055)	2.77
Cancelled	(41,082)	8.50
Outstanding at March 31, 2020	6,049,288	$ 5.44
Exercisable at March 31, 2020	2,846,100	$ 4.68

The weighted-average grant date fair value of options granted during the three months ended March 31, 2020 and 2019, was $3.79 and $2.39 per share, respectively.

Cash received from the exercise of stock options was $119 and $42 for the three months ended March 31, 2020 and 2019, respectively.

Restricted stock units

In July 2019, the Company issued RSUs with service conditions to employees. The awards cliff-vest two years after the grant date. In January 2020, the Company issued 324,932 RSUs with a service condition to employees for which the

Mersana Therapeutics, Inc.
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vesting term is annually over four years. Vesting of these awards is contingent on the fulfillment of the service conditions during the vesting term.

A summary of the RSU activity under the 2017 Plan is as follows:

	Number of Shares
Unvested at January 1, 2020	447,336
Granted	324,932
Vested	—
Forfeited	(12,075)
Unvested at March 31, 2020	760,193

Stock-based compensation expense

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

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.

The following table presents stock-based compensation expense by award type included within the Company's condensed consolidated statement of operations and comprehensive loss:

	Three months ended March 31,	
	2020	2019
Stock options	$ 1,233	$ 1,094
Restricted stock units	310	—
Employee stock purchase plan	66	70
Stock-based compensation expense included in Total operating expenses	$ 1,609	$ 1,164

The following table presents stock-based compensation expense as reflected in the Company's condensed consolidated statements of operations and comprehensive loss:

	Three months ended March 31,	
	2020	2019
Research and development	$ 797	$ 516
General and administrative	812	648
Stock-based compensation expense included in Total operating expenses	$ 1,609	$ 1,164

Mersana Therapeutics, Inc.
Notes to condensed consolidated financial statements (continued)
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As of March 31, 2020, there was $11,341 and $3,022 of unrecognized stock compensation expense related to unvested stock options and unvested RSUs, respectively, that is expected to be recognized over a weighted-average period of 2.5 and 2.9 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 March 31,	
	2020	2019
Risk-free interest rate	1.6 %	2.6 %
Expected dividend yield	— %	— %
Expected term (years)	6.04	6.00
Expected stock price volatility	69 %	74 %

Employee Stock Purchase Plan

During the year ended December 31, 2017, the Board adopted and the Company's stockholders approved the 2017 employee stock purchase plan (the 2017 ESPP). The Company initially reserved 225,000 shares of common stock for issuance under the 2017 ESPP. In January 2020, the number of shares of common stock for issuance under the 2017 ESPP was increased by 450,000 shares. The Company did not issue any shares under the 2017 ESPP during the three months ended March 31, 2020 and 2019. As of March 31, 2020, there were 725,085 shares available for issuance under the 2017 ESPP.

11. Leases

The Company has an operating lease for its office space in Cambridge, MA and operating and finance leases for certain equipment. In March 2020, the Company entered into the Seventh Amendment to the office space lease to extend the term of the lease through March 2026 and to provide the Company with a tenant improvement allowance of $172. The current rate per square foot that is in place through March 2021 (the original expiration date of the lease) did not change. After March 2021, there are predetermined fixed escalations of the rate as outlined in the amendment. The Company has an option to extend the lease term for an additional five years. The Company's exercise of this option was not considered reasonably certain as of March 31, 2020.

The extension is accounted for as a lease modification. The Company assessed the lease classification of the amended office space lease at the modification date and determined that the amended office space lease should be accounted for as an operating lease. The right-of-use asset and corresponding operating lease liability have been remeasured based on the present value of remaining lease payments over the remaining extended lease term, using the incremental borrowing rate applicable as of the lease modification date. The Company determined the appropriate incremental borrowing rate by using a synthetic credit rating which was estimated based on an analysis of outstanding debt of companies with similar credit and financial profiles. Since the operating lease is a net lease, as the non-lease components (i.e., common area maintenance) are paid separately from rent based on actual costs incurred, such non-lease components were not included in the right-of-use asset and liability and are reflected as an expense in the period incurred.

As a result of the modification, the Company recorded an increase of $9,980 to its right-of-use (ROU) asset and lease liabilities.

Mersana Therapeutics, Inc.
Notes to condensed consolidated financial statements (continued)
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Following the change, the Company's future minimum lease payments under non-cancellable leases as of March 31, 2020 were as follows:

	Operating leases	Finance leases
2020 (excluding the three months ended March 31, 2020)	$ 1,809	$ 87
2021	2,772	116
2022	2,843	84
2023	2,928	74
2024 and thereafter	6,904	18
Total lease payments	17,256	379
Present value adjustment	(4,811)	(41)
Present value of lease liabilities	$ 12,445	$ 338

12. Commitments

License agreements

Through March 31, 2020, the Company had 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 did not record any milestone payments during the three months ended March 31, 2020 and 2019.

13. Subsequent Events

On July 2, 2018, the Company established an at-the-market equity offering program (ATM) pursuant to which it is able to offer and sell up to $75,000 of its common stock from time to time at prevailing market prices. As of March 31, 2020, the Company had not sold any shares under the ATM. On April 7, 2020, the Company sold 8,938,599 and 1,962,000 shares of common stock at $5.59 per share and $7.74 per share, respectively, to raise gross proceeds of $65,153 through this ATM facility.

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 condensed consolidated financial statements and the accompanying notes appearing elsewhere in this Quarterly Report on Form 10-Q and the audited financial statements and the accompanying notes included in our Annual Report on Form 10-K for the year ended December 31, 2019 filed with the Securities and Exchange Commission (SEC) on February 28, 2020.

Our actual results and the 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 this Quarterly Report on Form 10-Q, including those risks identified under Part II, Item 1A. Risk Factors, and in our Annual Report on Form 10-K for the year ended December 31, 2019, filed with the SEC on February 28, 2020, including those risks identified under 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, or 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 and differentiated technology platforms that enable us to design ADCs to have improved efficacy, safety and tolerability relative to existing ADC therapies.

We believe that our innovative platforms which include Dolaflexin and Dolasynthen, each delivering our DolaLock payload, as well as Immunosynthen, delivering a novel stimulator of interferon genes, or STING, agonist, provide a highly efficient product engine that has enabled a robust discovery pipeline for us and our partners. Our ADCs in preclinical and clinical studies are first-in-class molecules that target multiple tumor types with high unmet medical need and have exhibited improved safety and efficacy compared to ADCs developed using first-generation technology.

Our goal is to become a leading oncology company by leveraging the potential of our innovative and differentiated ADC technologies, and the experience and competencies of our management team to identify, acquire and develop promising ADC product candidates and to commercialize cancer therapeutics that are improvements over existing treatments.

XMT-1536, a first-in-class ADC targeting the sodium-dependent phosphate transport protein NaPi2b, utilizes the Dolaflexin platform to deliver an average of 10 to 12 DolaLock payload molecules per antibody. The NaPi2b antigen is broadly expressed in NSCLC adenocarcinoma and ovarian cancer with limited expression in normal tissue. We are actively recruiting and dosing patients with ovarian cancer and NSCLC adenocarcinoma, where a majority of patients express NaPi2b in a Phase 1 clinical trial.

We have also selected our next clinical product candidate, XMT-1592. XMT-1592 uses one of our new platforms, Dolasynthen, and also targets NaPi2b. XMT-1592 comprises the same proprietary NaPi2b antibody and potent auristatin DolaLock payload with controlled bystander effect as XMT-1536, with the additional features of homogeneous, site-specific bioconjugation and precise drug-to-antibody ratio, or DAR. We filed an Investigational New Drug (IND) application in the first quarter of 2020, which was approved by the U.S. Food and Drug Administration (FDA). We remain on track to initiate the Phase 1 dose escalation study of XMT-1592 in the second quarter of 2020.

Our early stage programs include a potentially first-in-class B7-H4-targeted DolaLock ADC addressing areas of high unmet medical need. Our objective is to rapidly progress through IND-enabling studies and scale up manufacturing activities with third parties. B7-H4 provides significant opportunities for development in areas of high unmet need such as breast cancer, NSCLC and ovarian cancer.

In addition, we have established strategic research and development partnerships with Merck KGaA and Asana Biosciences for the development and commercialization of additional ADC product candidates against a limited number of targets selected by our partners based on our Fleximer 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.

Since inception, our operations have focused on building our platforms, identifying potential product candidates, producing drug substance and drug product material for use in preclinical studies, conducting preclinical and toxicology studies, manufacturing clinical study material and conducting clinical studies, 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 public offerings of our common stock. On April 7, 2020, we sold 8.9 million and 2.0 million shares of common stock at $5.59 per share and $7.74 per share, respectively, to raise gross proceeds of approximately $65 million through our at-the-market equity offering program, or ATM.

Since inception, we have incurred significant cumulative operating losses. For the three months ended March 31, 2020, the net loss was $16.9 million, compared to net income of $21.9 million in the three months ended March 31, 2019. The difference year over year is primarily attributable to $40.0 million in revenue that was recognized in the first quarter of 2019 as a result of the discontinuation of the partnership with Takeda in that quarter. As of March 31, 2020, we had an accumulated deficit of $209.3 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 activities for our lead product candidate XMT-1536 and initiate clinical development activities for XMT-1592;
- develop a research assay and companion diagnostic for the NaPi2b biomarker;
- continue activities to discover, validate and develop additional product candidates;
- maintain, expand and protect our intellectual property portfolio; and
- hire additional research, development and general and administrative personnel.

Impact of COVID-19 on Our Business

The coronavirus pandemic continues to evolve rapidly. We are monitoring the impact of the COVID-19 pandemic on operations and ongoing clinical and preclinical development, as well as discovery efforts. Mitigation activities to minimize COVID-19-related operation disruptions are ongoing and include:

- In line with guidance from the U.S. Centers for Disease Control and Prevention (CDC) and the state of Massachusetts, we have implemented work from home measures for all non-laboratory employees and have suspended all business travel. We have also prioritized laboratory activities and implemented staggered schedules in the interest of safety and efficiency for any laboratory-based employees.
- We are currently working with over 20 investigational sites in different geographic areas across the United States which are enrolling patients in the XMT-1536 Phase 1 study. Consistent with FDA guidance, we issued an administrative letter to allow for remote patient monitoring and remote testing, when possible. Most of the study sites continue to enroll patients in the study. At this time and subject to further COVID-19 implications to patient enrollment, we expect to be able to present more mature data from the expansion portion of the study in the second half of 2020.

- We believe we have sufficient inventory of XMT-1536 and XMT-1592 to support our ongoing and planned clinical studies as well as sufficient inventory of advanced intermediates stockpiled in the United States to support more than two years of manufacturing of drug substance and product. At this time and subject to further COVID-19 implications, we do not anticipate any disruptions to its clinical supply.

The ultimate impact of the coronavirus pandemic on our business operations is highly uncertain and subject to change and will depend on future developments, which cannot be accurately predicted. While the pandemic did not materially affect our financial results and business operations in the first quarter ended March 31, 2020, we are unable to predict the impact that COVID-19 will have on our financial position and operating results in future periods due to numerous uncertainties. Management is actively monitoring this situation and the possible effects on our financial condition, operations, suppliers, industry, and our employees. For additional information about risks and uncertainties related to the COVID-19 pandemic that may impact our business, our financial condition or our results of operations, see “Part II, Item 1A—Risk Factors” below in this Form 10-Q.

Financial operations overview

Revenue

To date, we have not generated any revenue from the sale of products. All of our revenue has been generated from strategic partnerships.

In June 2014, we entered into an 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 has the exclusive right to and is responsible for the further development and commercialization of these ADC product candidates. In May 2018, we entered into a supply agreement with Merck KGaA for the supply of materials that could be used for IND-enabling studies and clinical trials.

For the three months ended March 31, 2020 and 2019, we recognized revenue of an immaterial amount and $1.0 million, respectively, related to the Merck KGaA agreements.

In January 2016, we entered into collaboration agreements with Takeda for the development and commercialization of XMT-1522, a HER2-targeted ADC, and up to seven ADC product candidates utilizing Fleximer. The Company’s collaboration agreements with Takeda were terminated during the first quarter of 2019. We recognized the remaining deferred revenue of $40.0 million related to the termination of the Takeda agreements in the first quarter of 2019. We do not expect to have any further revenue related to these agreements.

We have provided limited services to Asana BioSciences. For each of the three months ended March 31, 2020 and 2019, we recorded an immaterial amount of revenue related to these services. The Company did not recognize any revenue related to milestones in the three months ended March 31, 2020 or 2019.

For the foreseeable future, we expect substantially all of our revenue to be generated from our collaboration agreements with Merck KGaA and Asana BioSciences. Given 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.

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, bonuses, 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 and preclinical and clinical studies, are generally recognized based on an evaluation of the progress to completion of specific tasks. Costs for certain development activities, such as clinical studies, are recognized based on an evaluation of the progress to completion of specific tasks using data such as patient enrollment, clinical site activations and information provided to us by the third parties with whom we contract.

Research and development activities are central to our business model. Product candidates in later stages of clinical development generally have higher development costs than those in earlier stages of clinical development, primarily due to the increased size and duration of later-stage clinical trials and manufacturing costs. We expect that our total future research and development costs will continue to increase over current levels, depending on the progress of our clinical development programs. 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. 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 for the three months ended March 31, 2020 and 2019. All external research and development expenses not attributable to the XMT-1536, XMT-1592 and XMT-1522 programs are captured within preclinical and discovery costs. These costs relate to XMT-1592 prior to its designation as our next ADC clinical candidate, as well as additional earlier discovery stage programs and certain unallocated costs. We terminated the development of XMT-1522 in the first quarter of 2019. Our internal research and development costs are primarily personnel-related costs, stock-based compensation costs, and facility costs, including depreciation and lab consumables. Pre-development candidate expenses, unallocated costs and internal research and development costs have been stated separately.

	Three months ended March 31,	
(in thousands)	**2020**	**2019**
XMT-1536 external costs	$ 2,370	$ 2,818
XMT-1592 external costs	1,174	—
XMT-1522 external costs	—	978
Preclinical and discovery costs	1,507	4,108
Internal research and development costs	7,168	7,239
Total research and development costs	$ 12,219	$ 15,143

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 employee-related costs, including stock-based compensation, for personnel in executive, finance, accounting, business development, legal operations, information technology 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, including increased costs related to the hiring of additional personnel, fees to outside consultants and patent costs, among other expenses.

Other income (expense)

Other income (expense) consists primarily of interest income earned on cash equivalents and marketable securities. Interest expense is related to borrowings under the credit facility that we entered into on May 9, 2019, with Silicon Valley Bank. These borrowings bear a floating per annum rate interest, as well as a final payment of 5% of the amounts drawn, that is being recorded as interest expense over the term through the maturity date using the effective-interest method. Also included in interest expense is the amortization of the deferred financing costs and the accretion of debt discount relating to the credit facility.

Results of Operations

Comparison of the three months ended March 31, 2020 and 2019

The following table summarizes our results of operations for the three months ended March 31, 2020 and 2019:

(in thousands)	Three months ended March 31, 2020	2019	Dollar Change
Collaboration revenue	$ 11	$ 41,035	$ (41,024)
Operating expenses:			
Research and development	12,219	15,143	(2,924)
General and administrative	4,936	4,443	493
Total operating expenses	17,155	19,586	(2,431)
Other income (expense):			
Interest income	306	452	(146)
Interest expense	(88)	—	(88)
Total other income (expense), net	218	452	(234)
Net income (loss)	$ (16,926)	$ 21,901	$ (38,827)

Collaboration Revenue

Collaboration revenue was immaterial during the three months ended March 31, 2020 and $41.0 million during the three months ended March 31, 2019. The decrease in collaboration revenue was primarily a result of the termination of the Takeda agreements and the recognition of the remaining deferred revenue of $40.0 million in the first quarter of 2019. Additionally, during the three months ended March 31, 2019, collaboration revenue of $1.0 million was recognized related to the Merck KGaA Agreement and Merck KGaA Supply Agreement.

Research and Development Expense

Research and development expense decreased by $2.9 million from $15.1 million for the three months ended March 31, 2019 to $12.2 million for the three months ended March 31, 2020.

The decrease in research and development expense was primarily attributable to the following:

- a decrease of $1.4 million related to manufacturing activities for XMT-1536;
- a decrease of $1.2 million because of an upfront payment in 2019 for a technology license fee and timing of research efforts;
- a decrease of $0.8 million related to the development and manufacturing activities for XMT-1522; and
- a decrease of $0.7 million to support partner programs.

These decreased costs were partially offset by the following:

- an increase of approximately $0.9 million related to XMT-1536 clinical and regulatory expenses; and
- an increase of $0.3 million related to advancement of companion diagnostic development efforts for the NaPi2b biomarker.

We expect our research and development expenses to increase as we continue our clinical development of XMT-1536 and XMT-1592 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 $0.5 million from $4.4 million during the three months ended March 31, 2019 to $4.9 million during the three months ended March 31, 2020. The increase in general and administrative was primarily attributable to an increase in the valuation of stock-based awards granted to employees, resulting in higher stock compensation expense.

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

Total Other Income (Expense), net

Total other income (expense), net was $0.2 million and $0.5 million for the three months ended March 31, 2020 and 2019, respectively. Other income consists primarily of interest income on cash equivalents and short-term marketable securities, which decreased $0.1 million due to lower investable balances for the three months ended March 31, 2020. Interest expense of $0.1 million in the first quarter of 2020 was related to our outstanding borrowings under the credit facility.

Liquidity and Capital Resources

Sources of Liquidity

Since our initial public offering in July 2017, we have financed our operations primarily with the proceeds from that offering and our 2019 follow-on public offering. The follow-on public offering was completed on March 5, 2019 and resulted in net proceeds of $92.2 million. On May 8, 2019, the Company entered into a term-loan agreement for up to $20.0 million, of which $5.0 million was funded in connection with the execution of the agreement. No additional amounts have been drawn since the initial $5.0 million. As of March 31, 2020, we had cash, cash equivalents and marketable securities of $78.4 million.

On July 2, 2018, we established an ATM pursuant to which we are able to offer and sell up to $75.0 million of our common stock from time to time at prevailing market prices. As of March 31, 2020, we had not sold any shares under the ATM and had $75.0 million of availability under the program. On April 7, 2020, we sold 8.9 million and 2.0 million shares of common stock at $5.59 per share and $7.74 per share, respectively, to raise gross proceeds of approximately $65 million.

Cash Flows

The following table provides information regarding our cash flows for the three months ended March 31, 2020 and 2019:

	Three months ended March 31,	
(in thousands)	**2020**	**2019**
Net cash used in operating activities	$ (21,246)	$ (24,687)
Net cash provided by investing activities	19,435	10,128
Net cash provided by (used in) financing activities	(90)	92,204
Increase (decrease) in cash, cash equivalents and restricted cash	$ (1,901)	$ 77,645

Net Cash Used in Operating Activities

Net cash used in operating activities was $21.2 million for the three months ended March 31, 2020 and primarily consisted of a net loss of $16.9 million adjusted for changes in our net working capital and other non-cash items including stock-based compensation of $1.6 million and depreciation of $0.2 million. Net cash used in operating activities was $24.7 million for the three months ended March 31, 2019 and primarily consisted of a net income of $21.9 million adjusted for non-cash items including the decrease in deferred revenue of $41.0 million primarily related to the Takeda agreements, stock-based compensation of $1.2 million and depreciation of $0.3 million, as well as change in our net working capital.

Net Cash Provided by Investing Activities

Net cash provided by investing activities was $19.4 million and $10.1 million during the three months ended March 31, 2020 and 2019, respectively, and consisted primarily of maturities of marketable securities.

Net Cash Provided by (Used in) Financing Activities

Net cash used in financing activities was $0.1 million during the three months ended March 31, 2020 as compared to net cash provided by financing activities of $92.2 million during the three months ended March 31, 2019. During the three months ended March 31, 2020 cash used in financing activities consisted primarily of the payment of $0.2 million of debt issuance costs, offset by $0.1 million in proceeds from the exercise of stock options. During the three months ended March 31, 2019 cash provided by financing activities consisted primarily of the proceeds from the Company's follow-on public offering.

Funding Requirements

We expect our cash expenditures to increase in connection with our ongoing activities, particularly as we continue the research and development of, initiate clinical studies 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.

We believe our currently available funds will be sufficient to fund our existing cash flow requirements and our operations at their currently planned levels through at least the twelve months following the filing of this Quarterly Report on Form 10-Q. Our forecast of the period of time through which our financial resources will be adequate to support our operations is a forward-looking statement and involves risks and uncertainties, and actual results could vary as a result of a number of factors. We have based this estimate on assumptions that may prove to be wrong, and we could utilize our available capital resources sooner than we currently expect. 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 studies 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 study 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 studies 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. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the ownership interests of our common stockholders will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of our common stockholders. We have access to an additional line of credit of $15.0 million under the Credit Facility along with funds to be earned in connection with our agreements with Merck KGaA and Asana BioSciences, if development activities are successful under those agreements. Future additional 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.

Critical accounting policies and significant judgments 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. There were no material changes to our critical accounting policies as reported in our Annual Report on Form 10-K for the year ended December 31, 2019, which was filed with the SEC on February 28, 2020.

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 equivalents and marketable securities are invested in U.S. Treasury obligations, commercial paper and corporate bonds. However, we believe that due to the short-term duration of our investment portfolio and low-risk profile of our investments, an immediate 100 basis points change in interest rates would not have a material effect on the fair market value of our investments portfolio.

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 in Asia and Europe and may be subject to fluctuations in foreign currency rates at that time.

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 (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 (i) recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms and (ii) 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 principal executive officer and principal financial officer, has evaluated the effectiveness of our disclosure controls and procedures as of March 31, 2020, the end of the period covered by this Quarterly Report on Form 10-Q. Based upon such evaluation, our principal executive officer and principal financial 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 (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that occurred during the three months ended March 31, 2020 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 date of this Quarterly Report on Form 10-Q, we do not believe we are 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.

Item 1A. Risk Factors

Risk Factors

Other than as disclosed below, there have been no material changes to the Company's risk factors as set forth in Part I, Item 1A of the Company's Annual Report on Form 10-K, as filed with the SEC on February 28, 2020.

Our business is subject to risks arising from the outbreaks of disease, such as epidemics or pandemics, including the ongoing COVID-19 pandemic.

On January 30, 2020, the World Health Organization (the "WHO") announced a global health emergency because of COVID-19, the strain of novel coronavirus that originated in Wuhan, China and has since spread globally. In March 2020, the WHO declared the COVID-19 outbreak a pandemic and recommended containment and mitigation measures worldwide. On March 13, 2020, President Trump announced a National Emergency relating to the disease. The widespread infection in the United States and abroad has caused significant volatility and uncertainty in U.S. and international markets, which could result in a prolonged economic downturn that may disrupt the Company's business, including by adversely affecting our ability to conduct financings on terms acceptable to us, if at all.

In addition, we may experience disruptions that could severely impact our business, preclinical studies and clinical trials, including:

- Our clinical trials may be adversely affected, delayed or interrupted, including, for example, site initiation, patient recruitment and enrollment, availability of clinical trial materials, and data analysis. Some patients and clinical investigators may not be able to comply with clinical trial protocols and patients may choose to withdraw from our studies or we may have to pause enrollment or we may choose to or be required to pause enrollment and or patient dosing in our ongoing clinical trials in order to preserve health resources and protect trial participants. It is unknown how long these pauses or disruptions could continue.

- We currently rely on third parties to, among other things, manufacture raw materials, manufacture our product candidates for our clinical trials, shipping of investigation drugs and clinical trial samples, perform quality testing and supply other goods and services to run our business. If any such third party in our supply chain for materials are adversely impacted by restrictions resulting from the coronavirus pandemic, including staffing shortages, production slowdowns and disruptions in delivery systems, our supply chain may be disrupted, limiting our ability to manufacture our product candidates for our clinical trials and conduct our research and development operations.

- We have requested that most of our personnel work remotely, restricted on-site staff to only those personnel and contractors who must perform essential activities that must be completed on-site and limited the number of staff in any given research and development laboratory. Our increased reliance on personnel working from home may negatively impact productivity, or disrupt, delay, or otherwise adversely impact our business. In addition, this could increase our cyber security risk, create data accessibility concerns, and make us more susceptible to communication disruptions, any of which could adversely impact our business operations or delay necessary interactions with local and federal regulators, ethics committees, manufacturing sites, research or clinical trial sites and other important agencies and contractors.

- Our employees and contractors conducting research and development activities may not be able to access our laboratory for an extended period of time as a result of the closure of our offices and the possibility that governmental authorities further modify current restrictions. As a result, this could delay timely completion of preclinical activities, including completing Investigational New Drug (IND)-enabling studies or our ability to select future development candidates, and initiation of additional clinical trials for other of our development programs.

- Health regulatory agencies globally may experience disruptions in their operations as a result of the coronavirus pandemic. The U.S. Food and Drug Administration, or FDA, and comparable foreign regulatory agencies may have slower response times or be under-resourced to continue to monitor our clinical trials and, as a result, review, inspection, and other timelines may be materially delayed. It is unknown how long these disruptions could continue, were they to occur. Any prolongation or de-prioritization of our clinical trials or delay in regulatory review resulting from such disruptions could materially affect the development and study of our product candidates. For example, regulatory authorities may require that we not distribute a product candidate lot until the relevant agency authorizes its release. Such release authorization may be delayed as a result of the coronavirus pandemic and could result in delays to our clinical trials.

- The trading prices for our common shares and other biopharmaceutical companies have been highly volatile as a result of the coronavirus pandemic. As a result, we may face difficulties raising capital through sales of our common shares or such sales may be on unfavorable terms. In addition, a recession, depression or other sustained adverse market event resulting from the spread of the coronavirus could materially and adversely affect our business and the value of our common shares.

The coronavirus pandemic continues to evolve, rapidly. The ultimate impact of the coronavirus pandemic on our business operations is highly uncertain and subject to change and will depend on future developments, which cannot be accurately predicted, including the duration of the pandemic, the ultimate geographic spread of the disease, additional or modified government actions, new information that will emerge concerning the severity and impact of COVID-19 and the actions taken to contain coronavirus or address its impact in the short and long term, among others. We do not yet know the full extent of potential delays or impacts on our business, our clinical trials, our research programs, healthcare systems or the global economy.

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	-	Seventh Lease Extension and Modification Agreement to the Lease Between Rivertech Associates II LLC and Mersana Therapeutics, Inc. dated March 10 2020, by and between Mersana Therapeutics, Inc. and Rivertech Associates II LLC.
EXHIBIT 10.2	-	Offer Letter, by and between Mersana Therapeutics, Inc. and Dirk Huebner, dated November 5, 2018.
EXHIBIT 10.3	-	Offer Letter, by and between Mersana Therapeutics, Inc. and Brian DeSchuytner, dated June 10, 2019.
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 — 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: May 8, 2020

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

Dated: May 8, 2020

By: /s/ Brian DeSchuytner
Brian DeSchuytner
Senior Vice President, Finance & Product Strategy

EXHIBIT 10.1

RIVERSIDE TECHNOLOGY CENTER

SEVENTH LEASE EXTENSION AND MODIFICATION AGREEMENT

TO THE LEASE BETWEEN

RIVERTECH ASSOCIATES II LLC AND MERSANA THERAPEUTICS, INC.

This Seventh Lease Extension and Modification Agreement (the "Seventh Lease Amendment") entered into this 10th day of March, 2020 (the "Seventh Lease Amendment Effective Date") by and between **Rivertech Associates II LLC,** a Massachusetts limited liability company with a principal address c/o The Abbey Group, 177 Huntington Avenue 24th Floor Boston, Massachusetts 02115, (the "Lessor"); and **Mersana Therapeutics, Inc.**, with a business address at 840 Memorial Drive Cambridge, Massachusetts (the "Lessee"); relative to a certain Lease between Lessor and Lessee dated February 24, 2009, as modified by a certain Lease Extension and Modification Agreement dated July 27, 2010 (the "First Lease Amendment"); as further modified by a Second Lease Extension and Modification Agreement dated May 29, 2012 (the "Second Lease Amendment"); as further modified by a Third Lease Extension and Modification Agreement dated February 7, 2013 (the "Third Lease Amendment"); as further modified by a Fourth Lease Extension and Modification Agreement dated April 30, 2014 (the "Fourth Lease Amendment"); as further modified by a Fifth Lease Extension and Modification Agreement dated November 30, 2015 (the "Fifth Lease Amendment"); and, as further modified by a "Sixth Lease Extension and Modification Agreement dated January 17, 2018 (the "Sixth Lease Amendment"); all collectively referred to herein as of the date hereof as the "Existing Lease"; for certain office and laboratory space in the building at 840 Memorial Drive Cambridge, Massachusetts as identified in the Existing Lease. The Existing Lease, as modified by this Seventh Lease Extension and Modification Amendment, (the "Seventh Lease Amendment"), from the execution hereof shall be referred to herein as the "Lease" (as the context so permits).

WHEREAS, the Lessee desires to extend the current stated Term of the Existing Lease, set to expire on March 31, 2021 as called for in the aforesaid Sixth Lease Amendment, on terms and conditions agreeable to both Lessor and Lessee as a modification to the Existing Lease, and Lessor assents to such extension of the Term by the Lessee on this basis;

THEREFORE, in consideration of One ($1.00) Dollar and the other good and valuable consideration recited herein, effective and irrevocable as of the date hereof, the Lessor and Lessee hereby agree as follows:

1. Additional Defined Terms

The following terms as used herein are defined as follows:

"2021 Termination Date" means March 31, 2021.

"2026 Termination Date" means March 31, 2026.

"Existing Leased Premises" means that space in the Building currently leased by the Lessee which presently consists of a total of approximately 34,324 rentable square feet of office and laboratory space, comprised of approximately: 20,090 rentable square feet of space on the second (2nd) floor of the Building; 14,168 rentable square feet of space on the fifth (5th) floor of the Building; and 66 rentable square feet of space on the fourth (4th) floor of the Building. Lessee shall have the right to remove the current acid neutralization system located within its 4th floor space and to repurpose the space as storage space, provided that, if Lessee removes the acid neutralization as stated here, Lessee shall be responsible to restore and return the 4th floor space to an operable acid neutralization system conforming to all code requirements at the time for such an acid monitoring and neutralization system to service the 5th floor laboratory space, at its sole cost and expense, upon relinquishing the premises on the 5th floor.

"Term", as of the execution of this Seventh Lease Amendment, means the period up to the 2026 Termination Date.

2. The Existing Leased Premises - Extension of Lease Term – Landlord's Work – Lessee's Improvement Allowance

Lessee agrees to extend its lease and occupancy of the Existing Leased Premises, which is presently set to expire on the 2021 Termination Date, for a period of sixty (60) consecutive months such that the Lease will now expire on the 2026 Termination Date (unless the Term is further extended as contemplated herein).

This Lease Extension is to be considered a valid and binding obligation of the parties effective as of the date of execution of this Seventh Lease Amendment by the parties, with the provisions of the Existing Lease (that are not superseded or supplemented hereby) to continue govern the Lessee's use and occupancy of the Existing Leased Premises through and up to the 2026 Termination Date (as the Term may be further extended beyond the 2026 Termination Date as contemplated herein).

Lessor and Lessee each acknowledge that to the best of each of their respective knowledge, there are no material defaults by either presently existing under the Existing Lease

The Existing Leased Premises shall be leased for the aforesaid period in the same "AS/IS" condition as of the execution of this Seventh Lease Amendment subject only to the Lessor's Work (as set forth below). Lessee hereby acknowledges it is currently in possession of the Existing Leased Premises and accordingly accepts the same for the extension period in the same "AS/IS" condition without representation or warranty of any kind or nature as of the execution of this Seventh Lease Amendment, and Lessee acknowledges Lessor is under no obligation to make any improvements or modifications thereto, in any manner, other than Lessor's Work (as set forth below). Notwithstanding the foregoing, Lessor shall perform the following work, at Lessor's sole cost and expense, in a reasonably practicable and expeditious manner (given the scope of the contemplated work), after execution of this Seventh Lease Amendment, but in no

event later than November 30, 2020 (as to work to be performed on the fifth (5th) floor) unless the parties agree otherwise (the "Lessor's Fifth Floor Work Completion Date"), and as to work to be performed on the second (2nd) floor, on such date as the parties agree after mutual review and consultation on the Vanderweil Engineering plan to be provided by Lessor (the "Lessor's Second Floor Work Completion Date") promptly after the Seventh Lease Amendment Effective Date. The contemplated work consists of upgrades of the mechanical systems (i.e. replacement of the makeup air and exhaust systems in the Lessee's four (4) existing laboratory spaces, (the "Existing Mechanical Systems") certified by Vanderweil Engineers (or such other qualified comparable engineering company selected by Lessor, with Lessee's reasonable approval), as appropriate to serve the Existing Leased Premises and consistent with Building operations, pursuant to the narrative description set forth on Exhibit A attached hereto (the "Lessor's Work"). Lessor and Lessee shall collaborate to ensure timely delivery of the aforesaid upgrades in a manner as will minimize material interference with Lessee's operations during the period of such Lessor's Work; however any disruption to Lessee's operations occasioned by Lessor's performance of such Lessor's Work shall not be deemed to be a breach of the Existing Lease nor shall it impose any additional liability upon Lessor unless Lessor is negligent or engages in any willful misconduct.

Notwithstanding anything to the contrary in the Lease or this Seventh Amendment, in the event that the Lessor's Work as to each of the second (2nd) floor and fifth (5th) floor spaces, is not completed by the Lessor's Fifth Floor Work Completion Date, or the Lessor's Second Floor Work Completion Date, respectively, (a) Lessor shall be liable for any maintenance and repair expenses for the Existing Mechanical Systems, and (b) Rent shall be abated on a day by day basis, each until such time as the respective component of Lessor's Work is completed.

Lessee shall have an affirmative obligation to schedule and provide full regular and routine preventive and actual maintenance and any necessary repairs by a third party service provider (to be approved by Lessor) as to the equipment and systems installed as part of Lessor's Work, for the balance of the Term of the Lease (as it may be extended), and provided such maintenance is attended to by Lessee in such manner, Lessor hereby grants a one (1) year warranty as to such installations. Lessee shall provide quarterly inspection and repair reports to Lessor, and upon request in the event of any material systemic failures or ad hoc repairs. Except as otherwise provided in this Section 2, Lessor shall be responsible to maintain the base building systems providing mechanical services to the Lessee's Existing Leased Premises.

Apart from the Lessor's Work, the Lessee shall be solely responsible, at its sole cost and expense, to perform such other specific design and construction work on the Existing Leased Premises as it desires for its use and occupancy, subject to Lessor's approval as called for in the Existing Lease ("Lessee's Work"), to be coordinated with the Lessor's Work (as required). The provisions of the Existing Lease with respect to the requirements for Lessee's permitting, plans approvals, and construction for such Lessee's Work shall govern these activities. Lessee's Work and all subsequent Lessee alterations to the Existing Leased Premises that are performed by Lessee on or affecting the fire, life safety and/or sprinkler systems of the building shall be made in such a manner and under such conditions as to pose no adverse impact or interruption to such fire, life safety, and sprinkler systems, and so as not to delay, impair, or jeopardize the legal

occupancy of other tenants in the Building, as determined by Lessor and municipal fire and building inspection officials.

Lessor shall provide the Lessee with an allowance to be applied to Lessee's Work, in the amount of One Hundred Seventy One Thousand Six Hundred Twenty ($171,620.00) Dollars (the "TI Allowance"); subject to the following terms and conditions. Lessor's release of any funds from the TI Allowance is predicated on Lessee's timely submittal of plans and specifications and a budget for Lessee's Work; and Lessor's approval of those plans and specifications and budget (which, upon approval, shall be the basis for determination of the release of said TI Allowance funds). Upon completion of Lessee's Work (but not later than April 1, 2022), Lessee may requisition the TI Allowance from Lessor by submitting its request for payment accompanied by supporting back-up documentation (to be supplemented as may be requested by Lessor), (the "Requisitioned Work"), together with lien waivers executed by Lessee's general contractor or separate subcontractors (as applicable). Lessor, within thirty (30) days following Lessor's receipt thereof, absent dispute, shall pay to Lessee from the TI Allowance an amount (the "TI Payment") attributable to the Requisitioned Work. If any lien is filed against the Building or any part thereof or interest therein arising out of or in connection with Lessee's Work then Lessor shall have no further obligation to disburse any funds from the TI Allowance to Lessee (nor shall Lessee be entitled to any reduction in Annual Base Rent as called for hereunder) unless and until the same is so discharged or otherwise disposed, in addition to and not in lieu of Lessor's rights and remedies under this contract and at law or in equity.

3. Annual Base Rent and Additional Rent Obligations

Lessee's Annual Base Rent obligations and payments up to March 31, 2021 (i.e. the 2021 Termination Date) shall be governed under the Existing Lease, as currently stated in the Sixth Lease Amendment.

Commencing as of April 1, 2021, and running through March 31, 2026 (i.e. the 2026 Termination Date), Lessee's Annual Base Rent obligations and payments shall be governed under the Existing Lease, as amended by this Seventh Lease Amendment.

Specifically, Annual Base Rent for the corresponding periods set forth below shall be as follows:

April 1, 2021 through March 31, 2022

$ 2,780,244.00 per annum / $ 231,687.00 per month;

April 1, 2022 through March 31, 2023

$ 2,863,651.32 per annum / $ 238,637.61 per month;

April 1, 2023 through March 31, 2024

$ 2,949,560.86 per annum / $ 245,796.74 per month;

April 1, 2024 through March 31, 2025

$ 3,038,047.69 per annum / $ 253,170.64 per month;

April 1, 2025 through March 31, 2026

$ 3,129,189.12 per annum / $ 260,765.76 per month.

Lessee's Additional Rent obligations and payments (i.e. Additional Rent – Operating Expenses, and Additional Rent – Taxes, utility reimbursements, etc.) shall continue under the Existing Lease up to the 2021 Termination Date, and through the 2026 Termination Date, and through any further extension period as contemplated herein.

All other costs and expenses for utilities and services and attendant to operation of the Existing Leased Premises shall be borne by the respective parties up to the 2021 Termination Date, and through the 2026 Termination Date, and through any further extension period as contemplated herein.

4. Security Deposit

The Security Deposit currently held by the Lessor is in the amount of Three Hundred Twenty One Thousand Three Hundred Twenty One ($321,321.00) Dollars, and it shall remain in place and shall continue to be held by Lessor as the Security Deposit under the Lease through to the 2026 Termination Date (and through any further extensions of the Term beyond that date as contemplated herein). To the extent the Security Deposit remains posted in the form of an irrevocable standby letter of credit (as it currently exists), then Lessee shall be responsible to renew or replace it prior to its stated expiration (which is currently June 20, 2020) and maintain it throughout the entire Term (and any Term extensions).

5. Permitted Uses

The Permitted Uses under the Existing Lease and all conditions attached thereto are hereby restated and affirmed and shall govern the use and occupancy of the entire Leased Premises.

6. Brokers

The parties hereby agree there are no brokerage or other third party fees or costs involved in this transaction and each agrees to indemnify, defend and hold harmless the other from and against any claims for brokerage fees, commissions or other such payments arising from this transaction; except for CBRE, who represents the Lessee in this extension and expansion transaction and to whom a commission shall be paid by Lessor under a separate agreement; with fifty (50%) percent of said fee due upon execution of this Seventh Lease Amendment, and the remaining fifty (50%) percent due on April 1, 2021.

7.Parking

Lessee's rights to parking shall be as expressly set forth in the Existing Lease. Lessor shall not increase the parking rates for such parking without at least thirty (30) days' prior written notice to Lessee.

8. Additional Rights Extended

Lessee's rights to use of the acid neutralization system as set forth in Section 10 of the Fifth Lease Amendment, rights to locate install and use certain equipment and systems as set forth in Section 11 of the Fifth Lease Amendment, and rights to use of the existing emergency generator as set forth in Section 11 of the Fifth Lease Amendment, shall continue through the 2026 Termination Date.

9. Lessee's Rights of First Offer

A. Contiguous Fifth (5th) Floor Space

Lessee shall maintain its rights to elect expansion into the 5th Floor ROFO Space on the terms and conditions set forth in Section 13 of the Fifth Lease Amendment through the Term as defined herein, with Market Rent for the ROFO Space to be determined as provided in Section 10, below. The Lessor's proposed "term" for the 5th Floor ROFO Space shall not exceed five (5) years, unless a longer "term" therefor is requested by Lessee and agreed by Lessor.

B. Contiguous Second (2nd) Floor Space

Lessee shall maintain its rights to elect expansion into the 2nd Floor ROFO Space on the terms and conditions as set forth in Section 9 of the Fourth Lease Amendment through the Term as defined herein, with Market Rent for the ROFO Space to be determined as provided in Section 10, below. The Lessor's proposed "term" for the 2nd Floor ROFO Space shall not exceed five (5) years, unless a longer "term" therefor is requested by Lessee and agreed by Lessor

10. Lessee's Option to Extend

Lessee, provided it is not then in default after notice and the expiration of any applicable grace or cure periods, and further provided it shall not have defaulted beyond any applicable notice, grace and cure periods during the remaining Lease Term after execution of this Seventh Lease Amendment, shall have the option to further extend the Term of this Lease beyond the 2026 Termination Date, as to the then entire Existing Leased Premises (as it may be supplemented by the exercise of Lessee's rights under Section 9 hereof), on the terms and conditions set forth herein (the "2026 Extension Option").

The extension shall be for one (1) additional period of sixty (60) months (herein, the "2031 Extension Period") at the then current Market Rent as contemplated below.

The 2026 Extension Option must be exercised by Lessee by notice in writing to the Lessor, prior to March 31, 2025, time being of the essence. Once so exercised, the option to extend is irrevocable, notwithstanding the later determination of Market Rent as contemplated below.

"Market Rent" as used herein, shall be that rent charged for comparable research laboratory and office space of similar age and condition in laboratory buildings in the mid-Cambridge submarket as of the commencement of applicable lease period (including annual escalations thereon for each year based on increases in the Consumer Price Index or fixed increases, as the case may be, as determined by then prevailing market forces).

If, after good faith attempts the Lessor and Lessee cannot agree on a figure representing Market Rent for the applicable space and lease timeframe, then either party, upon written notice to the other, may request appraisal and arbitration of the issue as provided in this Section. Within fourteen (14) days of the request for appraisal, each party shall submit to the other the name of one unrelated individual or entity with proven expertise in the leasing of commercial real estate in greater Boston/Cambridge to serve as that party's appraiser. Each appraiser shall be paid by the party selecting him or it. The two appraisers shall each submit their final reports to the parties within thirty (30) days of their selection making their determination as to Market Rent; however, in the event of a lease extension under this Section 10, in no event shall Market Rent be determined to be less than the Annual Base Rent as in effect as of the final year of the Term (i.e. as of the 2026 Termination Date) the "Extension Rent Floor"). The two appraisers shall meet within the next fourteen (14) days to reconcile their reports and collaboratively determine the Market Rent. They shall each make their determination in writing (subject however, to the Extension Rent Floor), including a statement if such is the case, that they are at an impasse. Such a statement of impasse shall be submitted to the parties along with the Market Rent figure which each appraiser has selected and his reasons and substantiation therefor. The appraisers, in case of an impasse, shall also agree on one unrelated individual or entity with expertise in commercial real estate in greater Boston, who shall evaluate the reports of the two original appraisers and within fourteen (14) days of submission of the issue to him, make his own determination as to a figure representing Market Rent (subject however, to the Extension Rent Floor). The determination of this individual or entity (i.e. arbitrator) absent, fraud, bias or undue prejudice shall be binding upon the parties.

Lessee, in addition to the sums payable annually to Lessor as Annual Base Rent, shall pay to Lessor for each year of the 2026 Extension Period Lessee's Allocable Percentage (as determined by the approximate total rentable space so leased) for Operating Expenses, Real Estate Taxes and utilities, as contemplated in the Lease.

Annual Base Rent and Additional Rent shall be payable in advance, in equal monthly installments on the first day of each calendar month.

11. Subordination

The Lease as amended hereby shall be subject and subordinate to the lien of any and all mortgages and related documents placed on the Building, Leased Premises or the real property in

existence as of the date hereof or coming into existence at any time hereafter, without necessity for any confirming documentation. Lessee shall use commercially reasonable efforts (which shall not be deemed to include the payment or expenditure of any sums whatsoever) to obtain a Subordination, Non-Disturbance and Attornment Agreement from its present and future mortgagees, in form and substance set forth in the Fourth Lease Amendment; but Lessor shall not be liable to Lessee in any manner (nor shall any of Lessee's full and timely performance under this Lease be conditioned, waived, excused or altered in any manner whatsoever) if no SNDA is forthcoming, or if any of the terms and conditions of the same are not deemed acceptable. This provision supersedes any contrary provisions of the Existing Lease.

12. Integration of Documents; Supremacy; Miscellaneous

This Seventh Lease Amendment contains the full understanding and agreement between the parties. The parties hereto intend that this Seventh Lease Amendment operates to amend and modify the Existing Lease, and that those documents shall be interpreted conjunctively; with any express conflict between the two to be resolved in favor of the stated terms of this Seventh Lease Amendment. Except as modified hereby, all other terms and conditions of the Existing Lease shall remain unchanged and enforceable in a manner consistent with this Seventh Lease Amendment.

This Agreement shall be governed by the laws of the Commonwealth of Massachusetts. Any provisions deemed unenforceable shall be severable, and the remainder of this Seventh Lease Amendment and the Existing Lease shall be enforceable in accordance with their terms.

Time is of the essence with respect to all deadlines and other provisions of this Seventh Lease Amendment.

[Signature Pages Follow]

LESSOR

RIVERTECH ASSOCIATES II, LLC

By: Rivertech Associates II, Inc.,
its Manager

By: /s/ Robert Epstein
Name: Robert Epstein
Title: President

LESSEE

MERSANA THERAPEUTICS, INC.

By: /s/ Anna Protopapas
Name: Anna Protopapas
its duly authorized Chief Executive Officer

By: /s/ Brian DeSchuytner
Name: Brian DeSchuytner
Its duly authorized SVP, Finance and Product Strategy

Mersana Therapeutics, Inc.
840 Memorial Dr.
Cambridge, MA 02139

November 5, 2018

VIA HAND DELIVERY

Dirk Huebner, M.D.
c/o Mersana Therapeutics, Inc.
840 Memorial Drive
Cambridge, MA 02139

Dear Dirk:

I am pleased to present you with this revised offer, which supersedes and replaces the offer presented to you on October 29, 2018. I am hereby offering you the position of Chief Medical Officer of Mersana Therapeutics, Inc. (the "Company"), subject to the terms and conditions of employment as set forth in this letter agreement (this "Agreement").

1. Position. Your position will be Chief Medical Officer, reporting to the President & Chief Executive Officer. In addition to performing duties and responsibilities associated with the position of Chief Medical Officer, from time to time the Company may assign you other duties and responsibilities consistent with such position. As a full-time employee of the Company, you will be expected to devote your full business time and energies to the business and affairs of the Company. Your performance will be reviewed on an annual basis.

2. Start Date and Nature of Relationship. Your start date is expected to be on or before Monday, December 3, 2018. Your employment with the Company will be for no specified period and will constitute "at-will" employment. As a result, either you or the Company may terminate your employment relationship at any time and for any reason. No provision of this Agreement shall be construed to create an express or implied employment contract between you and the Company for any specific period of time.

3. Compensation.

(a) Your base salary will be $19,166.67 per pay period (currently twice per month), which is $460,000.00 on an annualized basis and will be payable in accordance with the Company's standard payroll procedures. Your base salary will be eligible for potential discretionary merit increases, in the discretion of the Compensation Committee (the "Compensation Committee") of the Board of Directors of the Company.

(b) You will be eligible for an annual discretionary performance bonus with a target of forty percent (40%) of your annual base salary, subject to the achievement of performance goals determined by the Compensation Committee. The amount, terms and conditions of any annual bonus will be determined by the Compensation Committee in its discretion, subject to the terms and conditions of any applicable bonus plan in effect from time to time.

(c) You will receive a one-time sign-on cash bonus of $150,000.00 (the "Sign-on Bonus"), payable on the first pay date following the sixth month anniversary of your start date in accordance with the Company's regular payroll schedule and less applicable taxes and withholdings. The bonus is contingent on completion of twelve months of employment with Mersana. If within twelve months after your start date you voluntarily terminate employment, you must repay the full amount of the signing bonus.

(d) The Company will provide bonus recoupment assistance to you, if your current employer demands that you repay any portion of the second tranche of your sign-on bonus that you have received from your current employer in August 2018 (the "Previous Employer Bonus"). Mersana will reimburse up to $100,000 of such bonus repayment. Should the repayment be greater than $100,000, but less than or equal to $350,000, the Company will reimburse the first $100,000 and you and the Company will each contribute 50% of any recoupment amount over $100,000, up to a maximum recoupment amount of $350,000. This assistance will be made only if your current employer seeks repayment of some or all of the Previous Employer Bonus, contingent on provision of documentation substantiating the repayment. By way of example only, if your repayment obligation is $50,000, Mersana will reimburse $50,000; if your repayment obligation is $240,000, Mersana will reimburse $170,000; if your repayment obligation is $380,000, Mersana will reimburse $225,000. If within twelve months after your start date you voluntarily terminate employment with Mersana, you must repay the full amount of this bonus recoupment. In addition, notwithstanding the other provisions in Section 3(c), in the event that your Sign-on Bonus has not yet been paid and your current employer demands that you repay any portion of the Previous Employer Bonus, your Sign-on Bonus will become payable upon presentation to Mersana of documentation of same.

(e) Subject to approval by the Company's Board of Directors (or the Compensation Committee) following your employment start date, the Company will grant to you an option to purchase 100,000 shares of the Company's common stock, which option will vest (i.e., become exercisable) as to 25% of the shares on the first anniversary of your start date and the remainder of which shall vest at a rate of 6.25% quarterly over next three years, in each case, subject to your continued employment with the Company. The option exercise price will be equal to the fair market value of a share of the Company's common stock on the date of grant of the option as determined by the Company's Board of Directors (or its Compensation Committee). The option will be issued pursuant to the Mersana Therapeutics, Inc., 2017 Stock Incentive Plan (the "Plan") and will be subject to all of the terms and conditions set forth in the Plan and the option agreement governing the option. These documents will be provided to you at the time the stock option is granted to you. In the event of any conflict between this letter and the Plan or the stock option agreement, the Plan and the stock option agreement will control.

4. Benefits.

(a) You will be entitled to receive such benefits as are generally provided by the Company to its employees and for which you are eligible in accordance with Company policy and the terms and conditions of the applicable benefit plans, in each case, as in effect from time to time. The Company retains the right to change, add or cease any particular benefit at any time. You will be eligible for nine paid holidays and 4 weeks' paid vacation per year, which vacation eligibility will accrue at a rate of 1.67 days per month of service.

(b) As agreed, while this role is based in our Cambridge, MA office, you will have the flexibility to work from home from time to time provided the needs of the business, your job duties and responsibilities, and your overall job performance are not compromised.

5. Severance. In the event that your employment is terminated by the Company other than for Disqualifying Conduct (as defined below) and not as a result of your death or disability or you resign for Good Reason (as defined below) the Company shall, for nine (9) months following the date your employment terminates, (i) continue to pay you your base salary as in effect on the date of termination (or, to the extent such base salary was reduced giving rise to Good Reason hereunder, as in effect immediately prior to such reduction), in accordance with its standard payroll procedures, and (ii) provided that you timely elect to continue coverage in the Company's group health plans in accordance with COBRA or applicable state law, pay a portion of the COBRA or applicable state law premium contributions on your behalf equal to the excess of the cost of such premiums for you, your spouse and dependents (if applicable) over the amount that you would have paid for such coverage had you remained continuously employed by the Company, in each case, subject to your signing and returning to the Company (and not subsequently revoking), within sixty (60) days following the date on which your employment terminates, an effective separation agreement in the form provided by the Company (which separation agreement shall include a release of claims and restrictive covenants substantially similar to those contained in the Confidentiality Agreement) (the "Separation Agreement") and your continued compliance with the Confidentiality Agreement (as defined below). Notwithstanding the foregoing, if the Company determines that its payment of the COBRA or applicable state law premium contributions would subject the Company to any tax or penalty, then the Company may elect to pay to you in any month, in lieu of making such payments on your behalf, a cash payment equal to the Company's cost of the monthly premium contribution for that month in accordance with the Company's standard payroll procedures. Any salary continuation payments made under this Section 5 will begin sixty (60) days following the date your employment terminates, on the next regular Company payroll following such date, and the first such salary continuation payment will include all payments that would have otherwise been paid on the regular payroll dates of the Company following the date your employment terminates but prior to such first salary continuation payment.

For all purposes of this Agreement:

· "Disqualifying Conduct" shall mean, as determined by the Company: (i) willful misconduct or gross negligence as to a material matter in connection with your duties; (ii) any act constituting material dishonesty or fraud with respect to the Company; (iii) the indictment for, conviction of, or a plea of guilty or *nolo*

contendere to, a felony under applicable law; (iv) material violation of a material term of any written Company policy made available to you; (v) failure to attempt in good faith to (A) perform your duties in all material respects or (B) follow a clear, lawful and reasonable directive of the Board; or (vi) material breach of a fiduciary duty owed to the Company that has caused or could reasonably be expected to cause a material injury to the business; provided, that in no event shall your employment be terminated for Cause unless (A) an event or circumstance set forth in clauses (i), (ii), (iv) or (v) has occurred and the Company provides you with written notice after the Company has knowledge of the occurrence of existence of such event or circumstance, which notice reasonably identifies the event or circumstance that the Company believes constitutes Cause and (B) with respect to the events and circumstances set forth in clauses (iv) and (v) only, you fail to substantially cure the event or circumstance so identified within 30 days of the receipt of such notice; and

· "Good Reason" shall mean, without your consent: (i) a material decrease in your base salary; (ii) a material diminution in your authorities, duties or responsibilities, or (iii) the relocation of your principal work location to a location more than fifty (50) miles from its current location; provided, in each case, that (A) you provide written notice to the Company, setting forth in reasonable detail the event or events giving rise to Good Reason within thirty (30) days following the initial occurrence of such event, (B) such event or events are not cured by the Company within a period of thirty (30) days following its receipt of such written notice, and (C) you actually terminate your employment not later than thirty (30) days following the expiration of such cure period.

6. Change in Control. In the event your employment is terminated by the Company other than for Disqualifying Conduct (and not as a result of your death or disability) or you resign for Good Reason, in each case, on or within twelve (12) months following the consummation of a Change in Control (as defined below), in lieu of the payments set forth in Section 5 above, (i) the Company shall pay you a lump sum cash severance payment equal to the sum of (A) twelve (12) months' of your base salary and (B) one(1) times your annual target bonus, in each case as in effect on the date of termination (or, to the extent such base salary was reduced giving rise to Good Reason hereunder, as in effect immediately prior to such reduction), (ii) for a period of twelve (12) months following the date your employment terminates and provided that you timely elect to continue coverage in the Company's group health plans in accordance with COBRA or applicable state law, the Company shall pay a portion of the COBRA or applicable state law premium contributions on your behalf equal to the excess of the cost of such premiums for you, your spouse and dependents (if applicable) over the amount that you would have paid for such coverage had you remained continuously employed by the Company, and (iii) all of your stock options and other equity-based awards, to the extent outstanding immediately prior to the termination of your employment, will be treated as having vested in full as of immediately prior to such termination of employment, in each case, subject to your signing and returning to the Company (and not subsequently revoking), within sixty (60) days following the date on which your employment terminates, an effective Separation Agreement in the form provided to you by the Company and your continued compliance with the Confidentiality Agreement (as defined below). Notwithstanding the foregoing, if the Company determines that its payment of the COBRA or

applicable state law premium contributions would subject the Company to any tax or penalty, then the Company may elect to pay to you in any month, in lieu of making such payments on your behalf, a cash payment equal to the Company's cost of the monthly premium contribution for that month. Any cash severance payment made under this Section 6 will be made on the next regular Company payroll following the sixtieth (60th) day after the date your employment terminates.

For all purposes of this Agreement, the term "Change in Control" shall mean, as determined by the Company, a "change in control event" as that term is defined in the regulations under Section 409A of the Internal Revenue Code of 1986, as amended (the "Code").

7. Confidentiality. The Company considers the protection of its confidential information and proprietary materials to be very important. Therefore, as a condition of your employment, you and the Company will become parties to a Nondisclosure, Noncompete and Assignment of Intellectual Property Agreement in the form of Attachment A to this Agreement (the "Confidentiality Agreement"). Notwithstanding anything to the contrary in this Agreement, in the event you breach any provision of the Confidentiality Agreement or Separation Agreement (to the extent one arises as provided herein), the Company's obligation to pay or provide, or continue to pay or provide, any salary continuation, severance or other benefits under Section 5 or 6 of this Agreement, as applicable, shall immediately cease.

8. Withholding. All payments made under this Agreement shall be reduced by any tax or other amounts required to be withheld by the Company, its successors or any of their respective affiliates under applicable law.

9. Section 409A. Notwithstanding anything to the contrary in this Agreement, if at the time your employment terminates, you are a "specified employee," as defined below, any and all amounts payable under this Agreement on account of such separation from service that would (but for this provision) be payable within six (6) months following the date of termination, shall instead be paid on the next business day following the expiration of such six (6)-month period or, if earlier, upon your death; except to the extent of amounts or benefits that are not subject to the requirements of Section 409A of the Code. For purposes of this Agreement, all references to "termination of employment" and correlative phrases shall be construed to require a "separation from service" (as defined in Section 1.409A-1(h) of the Treasury regulations after giving effect to the presumptions contained therein), and the term "specified employee" means an individual determined by the Company to be a specified employee under Section 1.409A-1(i) of the Treasury regulations. Each payment made under this Agreement shall be treated as a separate payment and the right to a series of installment payments under this Agreement is to be treated as a right to a series of separate payments. In no event shall the Company have any liability relating to the failure or alleged failure of any payment or benefit under this Agreement to comply with, or be exempt from, the requirements of Section 409A of the Code.

10. Section 280G. If all, or any portion, of the payments or benefits provided under this Agreement, either alone or together with any other payment or benefit which you receive or are entitled to receive from the Company or an affiliate, would constitute an "excess parachute payment" within the meaning of Section 280G of the Code, then, notwithstanding anything in this Agreement or any other agreement or plan to the contrary, you shall be entitled to receive: (A) the amount of such payments or benefits, reduced such that no portion thereof shall fail to be tax deductible under Section 280G of the Code (the "Limited Amount"), or (B) if the amounts

otherwise payable hereunder and under any other agreement or plan of the Company or its subsidiaries (without regard to clause (A)), reduced by all taxes applicable thereto (including, for the avoidance of doubt, the excise tax imposed by Section 4999 of the Code), would be greater than the Limited Amount reduced by all taxes applicable thereto, the amounts otherwise payable hereunder. All determinations under this Section 10 shall be made by an accounting, consulting or valuation firm selected, and paid for, by the Company.

10. General.

(a) This Agreement, together with the Confidentiality Agreement, constitutes the entire agreement between the parties and supersedes all prior and contemporaneous communications, agreements and understandings, written or oral, with respect to the subject matter hereof. No amendment to this Agreement will be permitted except in writing, signed by the parties hereto.

(b) This Agreement shall be governed by the law of the Commonwealth of Massachusetts, without regard to any conflict of laws provisions.

(c) This Agreement may be executed in two or more counterparts, each of which shall be an original and all of which together shall constitute one and the same instrument.

You may accept this offer of employment and the terms and conditions of this Agreement by signing this letter, which execution will evidence your agreement with the terms and conditions set forth herein and therein and returning them to the Company.

This offer of employment will expire at the end of business, Friday, November 9, 2018, unless accepted by you prior to such date.

Sincerely,

MERSANA THERAPEUTICS, INC.

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

ACCEPTED AND AGREED:

/s/ Dirk Huebner
Date: 11/06/2018

Exhibit 10.3

Mersana Therapeutics, Inc.
840 Memorial Dr.
Cambridge, MA 02139

June 10, 2019

VIA EMAIL

Brian DeSchuytner
c/o Mersana Therapeutics, Inc.
840 Memorial Drive Cambridge,
MA 02139

Dear Brian:

I am pleased to offer you the position of Senior Vice President, Finance and Product Strategy of Mersana Therapeutics, Inc. (the "Company"), and present you with the terms and conditions of your employment by the Company, at set forth in this letter agreement (this "Agreement").

1. Position. Your position will be Senior Vice President, Finance and Product Strategy of the Company, reporting to the Chief Executive Officer of the Company. In addition to performing duties and responsibilities associated with the position of Senior Vice President, Finance and Product Strategy, from time to time the Company may assign you other duties and responsibilities consistent with such position. As a fulltime employee of the Company, you will be expected to devote your full business time and energies to the business and affairs of the Company. Your performance will continue to be reviewed on an annual basis.

2. Start Date and Nature of Relationship. Your start date is expected to be on or before July 10, 2019. Your employment with the Company will be for no specified period and will constitute "at-will" employment. As a result, either you or the Company may terminate your employment relationship at any time and for any reason. No provision of this Agreement shall be construed to create an express or implied employment contract between you and the Company for any specific period of time.

3. Compensation.

(a)Your base salary will be $380,000.00 (three hundred eighty thousand dollars and zero cents) on an annualized basis, and will be payable in accordance with the Company's standard payroll procedures.

Your base salary will be eligible for potential discretionary merit increases, in the discretion of the compensation committee (the "Compensation Committee") of the Board of Directors of the Company.

(b)You will be eligible for an annual discretionary performance bonus with a target of forty percent (40%) of your base salary, subject to the achievement of performance goals determined by the Compensation Committee. The amount, terms and conditions of any annual bonus will be determined by the Compensation Committee in its discretion, subject to the terms and conditions of any applicable bonus plan in effect from time to time.

(c)Subject to approval by the Company's Board of Directors (or the Compensation Committee) following your employment start date, the Company will grant to you an option to purchase 240,000 shares of the Company's common stock, which option will vest (i.e., become exercisable) as to 25% of the shares on the first anniversary of your start date and the remainder of which shall vest at a rate of 6.25% quarterly over next three years, in each case, subject to your continued employment with the Company. The option exercise price will be equal to the fair market value of a share of the Company's common stock on the date of grant of the option as determined by the Company's Board of Directors (or its Compensation Committee). The option will be issued pursuant to the Mersana Therapeutics, Inc., 2017 Stock Incentive Plan (the "Plan") and will be subject to all of the terms and conditions set forth in the Plan and the option agreement governing the option. These documents will be provided to you at the time the stock option is granted to you. In the event of any conflict between this letter and the Plan or the stock option agreement, the Plan and the stock option agreement will control.

4. Benefits. You will be entitled to receive such benefits as are generally provided by the Company to its employees and for which you are eligible in accordance with Company policy and the terms and conditions of the applicable benefit plans, in each case, as in effect from time to time. The Company retains the right to change, add or cease any particular benefit at any time. You will be eligible for nine paid holidays and 4 weeks' paid vacation per year, which vacation eligibility will accrue at a rate of 1.67 days per month of service.

5.Severance. In the event that your employment is terminated by the Company without Cause (as defined below, and which shall not include a termination of employment due to death or disability) or you resign for Good Reason (as defined below) the Company shall, for nine (9) months following the date your employment terminates, (i) continue to pay you your base salary as in effect on the date of termination (or, to the extent such base salary was reduced giving rise to Good Reason hereunder, as in effect immediately prior to such reduction), in accordance with its standard payroll procedures, and (ii) provided that you timely elect to continue coverage in the Company's group health plans in accordance with COBRA or applicable state law, pay a portion of the COBRA or applicable state law premium contributions on your behalf equal to the excess of the cost of such premiums for you, your spouse and dependents (if applicable) over the amount that you would have paid for such coverage had you remained continuously employed by the Company, in each case, subject to your signing and returning to the Company (and not subsequently revoking), within sixty (60) days following the date on which your employment terminates, an effective release of claims in the form provided by the Company and your continued compliance with the Confidentiality Agreement (as defined below). Notwithstanding the foregoing, if the Company determines that its payment of the COBRA or applicable state law premium contributions would subject the Company to any tax or penalty, then the Company may elect to pay to you in any month, in lieu of making such payments on your behalf, a cash payment equal to the Company's cost of the monthly premium contribution for that month in accordance with the Company's standard payroll procedures. Any salary continuation payments made under this Section 5 will begin sixty (60) days following the date your employment terminates, on the next regular Company payroll following such date, and the first such salary continuation payment will include all payments that would have otherwise been paid on the regular payroll dates of the Company following the date your employment terminates but prior to such first salary continuation

payment.

For all purposes of this Agreement:

- "Cause" shall mean, as determined by the Company: (i) willful misconduct or gross negligence as to a material matter in connection with your duties; (ii) any act constituting material dishonesty or fraud with respect to the Company; (iii) the indictment for, conviction of, or a plea of guilty or *nolo contendere* to, a felony under applicable law; (iv) material violation of a material term of any written Company policy made available to you; (v) failure to attempt in good faith to (A) perform your duties in all material respects or (B) follow a clear, lawful and reasonable directive of the Board; or (vi) material breach of a fiduciary duty owed to the Company that has caused or could reasonably be expected to cause a material injury to the business; provided, that in no event shall your employment be terminated for Cause unless (A) an event or circumstance set forth in clauses (i), (ii), (iv) or (v) has occurred and the Company provides you with written notice after the Company has knowledge of the occurrence of existence of such event or circumstance, which notice reasonably identifies the event or circumstance that the Company believes constitutes Cause and (B) with respect to the events and circumstances set forth in clauses (iv) and (v) only, you fail to substantially cure the event or circumstance so identified within 30 days of the receipt of such notice; and

- "Good Reason" shall mean, without your consent: (i) a material decrease in your base salary; (ii) a material diminution in your authorities, duties or responsibilities, (iii) the relocation of your principal work location to a location more than fifty (50) miles from its current location, or (iv) a material breach by the Company of this Agreement or an agreement with you with respect to your equity compensation; provided, in each case, that (A) you provide written notice to the Company, setting forth in reasonable detail the event or events giving rise to Good Reason within thirty (30) days following the initial occurrence of such event, (B) such event or events are not cured by the Company within a period of thirty (30) days following its receipt of such written notice, and (C) you actually terminate your employment not later than thirty (30) days following the expiration of such cure period.

6. Change in Control. In the event your employment is terminated by the Company without Cause or you resign for Good Reason, in each case, on or within twelve (12) months following the consummation of a Change in Control (as defined below), in lieu of the payments set forth in Section 5 above, (i) the Company shall pay you a lump sum cash severance payment equal to the sum of (A) 12 (twelve) months' of your base salary and (B) 1 (one) times your annual target bonus, in each case as in effect on the date of termination (or, to the extent such base salary was reduced giving rise to Good Reason hereunder, as in effect immediately prior to such reduction), (ii) for a period of 12 (twelve) months following the date your employment terminates and provided that you timely elect to continue coverage in the Company's group health plans in accordance with COBRA or applicable state law, the Company shall pay a portion of the COBRA or applicable state law premium contributions on your behalf equal to the excess of the cost of such premiums for you, your spouse and dependents (if applicable) over the amount that you would have paid for such coverage had you remained continuously employed by the Company, and (iii) all of your stock options and other equity-based awards, to the extent outstanding immediately prior to the termination of your employment, will be treated as having vested in full as of immediately prior to such termination of employment, in each case, subject to your signing and returning to the Company (and not subsequently revoking), within sixty (60) days following the date on which your employment terminates, an effective release of claims in the form provided to you by the Company and your continued compliance with the Confidentiality Agreement (as defined below). Notwithstanding the foregoing, if the Company determines that its payment of the COBRA or applicable state law premium contributions would subject the Company to any tax or penalty, then the Company may elect to pay to you in any month, in lieu of making

such payments on your behalf, a cash payment equal to the Company's cost of the monthly premium contribution for that month. Any cash severance payment made under this Section 6 will be made on the next regular Company payroll following the sixtieth (60th) day after the date your employment terminates.

For all purposes of this Agreement, the term "Change in Control" shall mean, as determined by the Company, a "change in control event" as that term is defined in the regulations under Section 409A of the Internal Revenue Code of 1986, as amended (the "Code").

7. Confidentiality. The Company considers the protection of its confidential information and proprietary materials to be very important. Therefore, as a condition of your employment, you and the Company will become parties to a Nondisclosure and Assignment of Intellectual Property Agreement substantially in the form of Attachment A to this Agreement (the "Confidentiality Agreement").

8. Withholding. All payments made under this Agreement shall be reduced by any tax or other amounts required to be withheld by the Company, its successors or any of their respective affiliates under applicable law.

9. Section 409A. Notwithstanding anything to the contrary in this Agreement, if at the time your employment terminates, you are a "specified employee," as defined below, any and all amounts payable under this Agreement on account of such separation from service that would (but for this provision) be payable within six (6) months following the date of termination, shall instead be paid on the next business day following the expiration of such six (6)-month period or, if earlier, upon your death; except to the extent of amounts or benefits that are not subject to the requirements of Section 409A of the Code. For purposes of this Agreement, all references to "termination of employment" and correlative phrases shall be construed to require a "separation from service" (as defined in Section 1.409A-l(h) of the Treasury regulations after giving effect to the presumptions contained therein), and the term "specified employee" means an individual determined by the Company to be a specified employee under Section 1,409A-l(i) of the Treasury regulations. Each payment made under this Agreement shall be treated as a separate payment and the right to a series of installment payments under this Agreement is to be treated as a right to a series of separate payments. In no event shall the Company have any liability relating to the failure or alleged failure of any payment or benefit under this Agreement to comply with, or be exempt from, the requirements of Section 409A of the Code.

10. Section 280G. If all, or any portion, of the payments or benefits provided under this Agreement, either alone or together with any other payment or benefit which you receive or are entitled to receive from the Company or an affiliate, would constitute an "excess parachute payment" within the meaning of Section 280G of the Code, then, notwithstanding anything in this Agreement or any other agreement or plan to the contrary, you shall be entitled to receive: (A) the amount of such payments or benefits, reduced such that no portion thereof shall fail to be tax deductible under Section 280G of the Code (the "Limited Amount"), or (B) if the amounts otherwise payable hereunder and under any other agreement or plan of the Company or its subsidiaries (without regard to clause (A)), reduced by all taxes applicable thereto (including, for the avoidance of doubt, the excise tax imposed by Section 4999 of the Code), would be greater than the Limited Amount reduced by all taxes applicable thereto, the amounts otherwise payable hereunder. All determinations under this Section 10 shall be made by an accounting, consulting or valuation firm selected, and paid for, by the Company.

11. General.

(a)This Agreement constitutes the entire agreement between the parties and supersedes all prior and contemporaneous communications, agreements and understandings, written or oral, with respect to the subject matter hereof. No amendment to this Agreement will be permitted except in writing, signed

by the parties hereto.

(b)This Agreement shall be governed by the law of the Commonwealth of Massachusetts, without regard to any conflict of laws provisions.

(c)This Agreement may be executed in two or more counterparts, each of which shall be an original and all of which together shall constitute one and the same instrument. You may accept this offer of employment and the terms and conditions of this Agreement by signing this letter, which execution will evidence your agreement with the terms and conditions set forth herein and therein, and returning them to the Company.

This offer of employment will expire at the end of business June 11, 2019, unless accepted by you prior to such date.

Sincerely,

MERSANA THERAPEUTICS, INC.

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

ACCEPTED AND AGREED:

/s/ Brian DeSchuytner
Date: 06/10/2019

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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)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) 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) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

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

   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (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
(Principal Executive Officer)

Dated: May 8, 2020

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, Brian DeSchuytner, 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)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) 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) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

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

   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (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/ Brian DeSchuytner

Brian DeSchuytner
Senior Vice President, Finance & Product Strategy
(Principal Financial Officer)

Dated: May 8, 2020

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 March 31, 2020 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 or his 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: May 8, 2020

/s/ Anna Protopapas
Anna Protopapas
President and Chief Executive Officer
(Principal Executive Officer)

Dated: May 8, 2020

/s/ Brian DeSchuytner
Brian DeSchuytner
Senior Vice President, Finance & Product Strategy
(Principal Financial Officer)