UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): May 9, 2019

MERSANA THERAPEUTICS, INC.

(Exact name of registrant as specified in its charter)

Delaware

001-38129

04-3562403

(State or other jurisdiction of incorporation)

(Commission File Number)

(IRS Employer Identification No.)

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

02139

(Zip Code)

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

Not Applicable

(Former name or former address, if changed since last report)

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

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- o Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- o Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- o Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- o Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company x

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. x

Item 2.02 Results of Operations and Financial Condition.

On May 9, 2019, Mersana Therapeutics, Inc., issued a press release announcing its financial results for the quarter ended March 31, 2019. A copy of the press release is furnished as Exhibit 99.1 to this Current Report on Form 8-K.

The information contained in this Current Report on Form 8-K, including Exhibit 99.1 attached hereto, is being furnished and shall not be deemed "filed" for the purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and shall not be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as expressly set forth by specific reference in such filing.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits	
Exhibit No.	Description
99.1	Press Release by Mersana Therapeutics, Inc., on May 9, 2019
	2

EXHIBIT INDEX

No.	Description
99.1	Press Release by Mersana Therapeutics, Inc., on May 9, 2019
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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 hereunto duly authorized.

MERSANA THERAPEUTICS, INC.

/s/ David Spellman
David Spellman
Chief Financial Officer

Date: May 9, 2019

Mersana Therapeutics Announces First Quarter 2019 Financial Results and Provides Business Updates

Emerging Safety and Tolerability Profile Supports Advancement of Program; Plans for Expansion Cohort Initiation on Track

Company Plans to Present Interim Data from the Ongoing XMT-1536 Dose Escalation Study at the ASCO 2019 Annual Meeting

Ended First Quarter 2019 with \$137 Million in Cash

CAMBRIDGE, Mass., May 9, 2019 — Mersana Therapeutics, Inc. (NASDAQ:MRSN), a clinical-stage biopharmaceutical company focused on discovering and developing a pipeline of antibody drug conjugates (ADCs) targeting cancers in areas of high unmet medical need, today reported financial results and a business update for the first quarter ended March 31, 2019.

"We have continued to make important progress in advancing XMT-1536, our first-in-class ADC clinical candidate targeting NaPi2b. We are very pleased with the safety, efficacy, and duration of treatment seen to date in unselected and heavily pretreated ovarian cancer and NSCLC adenocarcinoma patients. This profile provides us with the confidence to move forward with expansion studies in these two indications with high unmet medical need. We look forward to presenting interim data from the dose escalation phase of the study at the upcoming ASCO 2019 annual meeting," said Anna Protopapas, President and CEO of Mersana Therapeutics. "We also continue to advance our earlier-stage ADC programs and remain on track to disclose our next clinical candidate in the fourth quarter of 2019. With our successfully completed financing, we have the resources necessary to drive these promising programs forward."

Recent Highlights and Updates

Clinical Program

- The Phase 1 dose escalation study of XMT-1536 for the treatment of NaPi2b-expressing cancers remains ongoing. XMT-1536 is a first-in-class Dolaflexin ADC targeting NaPi2b, which is broadly expressed in epithelial ovarian cancer and non-small cell lung cancer (NSCLC) adenocarcinoma. The data to date from the ongoing XMT-1536 dose escalation study indicate that the trial has reached clinically relevant dose levels, starting at 20 mg/m² but has not yet reached a maximum tolerated dose. The Company continues to evaluate patients in the 36 mg/m² once-every-four-week dosing cohort. Mersana plans to present data from the once-every-three-week dosing schedule and from patients dosed up to and including, the 30 mg/m² dose cohort in the once-every-four-week dosing schedule, at the upcoming ASCO Annual Meeting in June 2019.
- · **Site initiation for the dose expansion portion of the XMT-1536 Phase 1 study is underway.** Mersana is in the process of initiating additional sites in anticipation of dosing patients in two expansion groups in the third quarter of 2019. In the first group, the Company plans to enroll platinum-resistant ovarian cancer patients who have failed standard therapy. The second patient group will enroll NSCLC adenocarcinoma patients who have failed front line platinum-based chemotherapy as well as anti-PD-1 or anti-PDL-1 therapy.

Discovery & Platform Progress

- · On track to disclose its next ADC clinical candidate in the fourth quarter of 2019, further strengthening its scientific leadership in ADC development. The Company is targeting the filing of an Investigational New Drug (IND) application with the U.S. Food and Drug Administration (FDA) in the first half of 2020.
- Presented data on its novel Dolasynthen platform and modular Synthemer scaffold at the American Association for Cancer Research (AACR) Annual Meeting in April 2019. Key details of the data presented are summarized below:
 - The presentation, titled "Dolasynthen A Novel, Homogeneous Auristatin F Hydroxypropyl Amide Antibody-Drug Conjugate Platform" provided an overview of Dolasynthen, Mersana's novel, fully synthetic, structurally homogeneous drug conjugation platform with a tunable drug-to-antibody ratio (DAR) from 2 to 24. Precisely defined ADCs created for multiple targets displayed excellent drug-like properties, as well as potent activity, excellent tolerability, and a broad therapeutic index in preclinical in vivo models, demonstrating the significant potential for clinical application and differentiation.
 - · The poster, titled "An Antibody-Drug Conjugate Carrying a Microtubule Inhibitor and a DNA Alkylator Exerts Both Mechanisms of Action on Tumor Cells" characterized Mersana's use of its modular Synthemer platform to engineer a dual-payload ADC to deliver two mechanistically distinct payloads simultaneously to each target cell. This data further demonstrates the flexibility of the modular Synthemer approach and its potential to address a broad set of set of applications.

Corporate Updates

- · **Successful completion of equity financing further strengthens balance sheet.** On March 5, 2019, the Company announced the closing of a public offering with aggregate gross proceeds from the offering of approximately \$97.8 million.
- · Completed non-dilutive debt financing for additional financial flexibility. On May 8, 2019, the Company completed a non-dilutive debt financing with Silicon Valley Bank (SVB) that provides Mersana with the ability to draw up to \$20.0 million, the proceeds of which will be used for general corporate and working capital purposes. The first tranche of \$5.0 million was drawn down by the Company upon execution of the relevant Loan and Security Agreement, and under the terms of the Agreement, the Company has the option to draw additional advances over time. Further information describing the Agreement with SVB will be included in the Form 10-Q to be filed by Mersana with the Securities and Exchange Commission.

Upcoming Events

• The Company will present interim Phase 1 dose escalation clinical data for XMT-1536 at the upcoming American Society of Clinical Oncology (ASCO) 2019 medical meeting on June 1, 2019 in Chicago, IL. The presentation format will be a poster, followed by a poster discussion.

2019 Financial Results

Cash, cash equivalents and marketable securities as of March 31, 2019, were \$137.3 million, compared to \$70.1 million as of December 31, 2018. On March 5, 2019 the Company completed a public equity offering with gross proceeds of \$97.8 million. The Company expects that its cash, cash equivalents and marketable securities will enable it to fund its operating plan into at least mid-2021.

First Quarter 2019

- Collaboration revenue for the first quarter 2019 was approximately \$41.0 million, compared to \$3.1 million for the same period in 2018. The increase
 in collaboration revenue was primarily due to the recognition of the remaining \$40.0 million in deferred revenue associated with the discontinuation
 of the XMT-1522 program and Takeda collaboration announced in January 2019.
- · Research and development expenses for the first quarter 2019 were approximately \$15.1 million, compared to \$12.3 million for the same period in 2018, driven primarily by an increase in external costs for the manufacturing activities for XMT-1536 and the Company's next clinical candidate as well as modest increases in headcount and facilities costs. The increase was offset by a decrease in external clinical and regulatory expenses due to the discontinuation of the XMT-1522 clinical program.
- General and administrative expenses for the first quarter 2019 were approximately \$4.4 million, compared to \$3.6 million for the same period in 2018, driven primarily by increased employee-related expenses due to an increase in headcount and increased professional fees.
- · Net income for the first quarter 2019 was \$21.9 million, or \$0.72 per share, compared to a net loss of \$12.4 million, or \$0.54 per share, for the same period in 2018. Net income for the first quarter 2019 was driven by recognition of the remaining \$40.0 million in deferred revenue associated with the discontinuation of the XMT-1522 program and Takeda collaboration announced in January 2019. Weighted average common shares outstanding for the quarters ended March 31, 2019 and March 31, 2018, were 30,299,650 and 22,816,521 respectively.

Conference Call

Mersana Therapeutics will host a conference call and webcast today at 8:00 a.m. ET to report financial results for the first quarter of 2019 and provide certain business updates. To access the call, please dial 877-303-9226 (domestic) or 409-981-0870 (international) and provide the Conference ID 1378664. A live webcast of the presentation will be available on the Investors & Media section of the Mersana website at www.mersana.com.

About XMT-1536

XMT-1536 is a Dolaflexin ADC targeting the sodium-dependent phosphate transport protein (NaPi2b) and is comprised of an average of 10-15 DolaLock payload molecules conjugated to XMT-1535, a proprietary humanized anti-NaPi2b antibody. NaPi2b is an antigen highly expressed in the majority of non-small cell lung cancer (NSCLC) adenocarcinoma and ovarian cancer. XMT-1536 is in Phase 1 clinical trials in patients with tumors expressing NaPi2b, including ovarian cancer, NSCLC adenocarcinoma and other cancers. More information on the ongoing Phase 1 clinical trial can be found at clinicaltrials.gov.

About Mersana Therapeutics

Mersana Therapeutics is a clinical-stage biopharmaceutical company using its differentiated and proprietary ADC platforms and its modular Synthemer scaffold to develop highly targeted drugs with increased tolerability and expanded opportunities to deliver meaningful clinical benefit to cancer patients. Mersana's lead product candidate, XMT-1536, is in a Phase 1 clinical trial in patients with tumors expressing NaPi2b, including ovarian cancer, NSCLC adenocarcinoma, and other cancers. In addition, multiple partners are using Mersana's platform to advance their ADC pipelines.

Forward-Looking Statements

This press release contains "forward-looking" statements within the meaning of federal securities laws. These forward-looking statements are not statements of historical facts and are based on management's

beliefs and assumptions and on information currently available to management. Forward-looking statements include information concerning the Company's business strategy and the design, progression and timing of its clinical trials. Forward-looking statements generally can be identified by terms such as "anticipates," "believes," "could," "seeks," "estimates," "intends," "may," "plans," "potential," "predicts," "projects," "should," "will," "would" or similar expressions and the negatives of those terms. Forward-looking statements represent management's beliefs and assumptions only as of the date of this press release. The Company's operations involve risks and uncertainties, many of which are outside its control, and any one of which, or combination of which, could materially affect its results of operations and whether the forward-looking statements ultimately prove to be correct. Factors that may materially affect the Company's results of operations and whether these forward-looking statements prove to be correct include, among other things, that preclinical testing may not be predictive of the results or success of ongoing or later preclinical or clinical trials, that the development and testing of the Company's product candidates and new platforms will take longer and/or cost more than planned and that the identification of new product candidates will take longer than planned, as well as those listed in the Company's Annual Report on Form 10-K filed on March 8, 2019, with the Securities and Exchange Commission ("SEC") and subsequent SEC filings. Except as required by law, the Company assumes no obligation to update these forward-looking statements publicly, or to update the reasons actual results could differ materially from those anticipated in the forward-looking statements, even if new information becomes available in the future.

Mersana Therapeutics, Inc. Selected Condensed Consolidated Balance Sheet Data (in thousands) (unaudited)

	N	March 31, 2019	December 31, 2018	
Cash, cash equivalents and marketable securities	\$	137,279	\$	70,131
Working capital (1)		118,478		4,880
Total assets		149,388		78,502
Total stockholders' equity		124,072		8,795

⁽¹⁾ The Company defines working capital as current assets less current liabilities. See the Company's condensed consolidated financial statements for further detail regarding its current assets and current liabilities.

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

		Three months ended			
	March 31, 2019		March 31, 2018		
	-				
Collaboration revenue	\$	41,035	\$	3,064	
Operating expenses:					
Research and development		15,143		12,256	
General and administrative		4,443		3,571	
Total operating expenses		19,586		15,827	
Other income		452		360	
Net income (loss)	\$	21,901	\$	(12,403)	
Other comprehensive income (loss):		,	_		
Unrealized gain (loss) on marketable securities		8		(13)	
Comprehensive income (loss)	\$	21,909	\$	(12,416)	
Net income (loss) attributable to common stockholders — basic and diluted	\$	21,901	\$	(12,403)	
Net income (loss) per share attributable to common stockholders — basic	\$	0.72	\$	(0.54)	
Net income (loss) per share attributable to common stockholders — diluted	\$	0.70	\$	(0.54)	
Weighted-average number of shares of common stock used in net income (loss) per share attributable to					
common stockholders — basic		30,299,650		22,816,521	
Weighted-average number of shares of common stock used in net income (loss) per share attributable to					
common stockholders — diluted		31,461,696		22,816,521	

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Contact:

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