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): **August 14, 2018**

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	**02139**
(Address of principal executive offices)	(Zip Code)

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

Not Applicable
(Former name or former address, if changed since last report)

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 August 14, 2018, Mersana Therapeutics, Inc., issued a press release announcing its financial results for the quarter ended June 30, 2018. 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 August 14, 2018

EXHIBIT INDEX

No.	Description
99.1	Press Release by Mersana Therapeutics, Inc., on August 14, 2018

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.

By: /s/ Eva Jack
Eva Jack
Chief Business Officer

Date: August 14, 2018

Exhibit 99.1

Mersana Therapeutics Announces Second Quarter 2018 Financial Results and Provides Business Updates

Response to the FDA Partial Clinical Hold Submitted This Week

Strong Balance Sheet with a cash position of $97M to close Q2

CAMBRIDGE, Mass., August 14, 2018 — Mersana Therapeutics, Inc. (NASDAQ:MRSN), a clinical-stage biopharmaceutical company focused on discovering and developing a pipeline of antibody drug conjugates (ADCs) based on its Dolaflexin® and other proprietary platforms, today reported financial results and a business update for the second quarter ended June 30, 2018.

"Our top priority is to resolve the partial clinical hold placed on our novel drug candidate XMT-1522 for HER2 expressing cancers, and to continue advancing XMT-1536 for solid tumors expressing NaPi2b," said Anna Protopapas, President and CEO of Mersana Therapeutics. "We have submitted our response to the FDA this week and are optimistic that, based on communications with the FDA, we are aligned on a path to lifting the hold."

Clinical Program Status of XMT-1522

As reported on July 19, 2018, the U.S. Food and Drug Administration (FDA) placed the Phase 1 study of XMT-1522 on partial clinical hold following a report to the FDA of a Grade 5 Serious Adverse Event (patient death) in dose level 7 of the XMT-1522 Phase 1 trial. The company continues to dose patients who had started treatment prior to the hold and continue to participate in the trial consistent with the protocol.

Clinical Update on XMT-1536

XMT-1536 is a first-in-class Dolaflexin ADC targeting NaPi2b, which is broadly expressed in epithelial ovarian cancer and non-squamous non-small cell lung cancer, as well as several other rare tumor types. The company continues to dose patients in its Phase 1 dose escalation study. Upon completing the dose escalation phase and selecting a recommended phase 2 dose (RP2D), the company will move into expansion studies in defined patient populations.

Other Recent Highlights and Updates

Further data on our Clinical Programs

- **Presented interim dose escalation data on XMT-1522 in select cancers at the 2018 American Society of Clinical Oncology (ASCO) Annual Meeting**. These data showed that as of April 21, 2018, 22 patients had completed the dose limiting toxicity (DLT) evaluation period across 6 dose levels. As of that date, the treatment was well-tolerated, with most adverse events (AEs) for those patients being low grade and manageable; the most common treatment-related AEs were fatigue, nausea, vomiting,

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anemia, and transient elevations of AST and ALT. As of the date of the ASCO disclosure, six patients had been dosed at dose level 7 (28.3 mg/m^2), but only three had completed the first evaluation period. Of the thirteen patients enrolled at doses of 16 mg/m^2 or greater at that time, including the three from dose level 7, eleven had stable disease (SD) or better, including one confirmed partial response (PR).

Discovery & Platform Progress

- The company has progressed its research on new payloads, platforms and new molecules and plans to present preclinical data at a major scientific meeting in the fourth quarter of 2018.

Upcoming 2018 Events

- The company will give a corporate presentation on August 15, 2018, at the 2018 Wedbush PacGrow Healthcare Conference in New York City.
- The company will give a corporate presentation at the H.C. Wainwright Healthcare Conference in New York City from September 4 to 6, 2018
- The company will give a corporate presentation on September 6, 2018, at the Baird Healthcare Conference in New York City
- The company will be presenting preclinical data on XMT-1536 at the IASLC World Conference on Lung Cancer in Toronto on September 25, 2018. Data will be presented demonstrating preferential expression of NaPi2b in lung adenocarcinoma, as determined using a new immunohistochemical reagent developed by the company, that can be used to detect NaPi2b expression in tissue samples.

Financial Results

- Cash, cash equivalents and marketable securities as of June 30, 2018, were $96.5 million, compared to $125.2 million as of December 31, 2017. The company expects that its cash, cash equivalents and marketable securities will enable it to fund its operating plan for at least the next twelve months.
- Collaboration revenue for the second quarter 2018 was approximately $4.2 million, compared to $3.7 million for the same period in 2017, primarily due to a $1.5 million milestone achieved during the three months ended June 30, 2018.
- Research and development expenses for the second quarter 2018 were approximately $12.6 million, compared to $10.6 million for the same period in 2017, driven primarily by an increase in employee-related costs due to increased headcount and clinical and in regulatory expenses due to the progress of XMT-1522 and XMT-1536.
- General and administrative expenses for the second quarter 2018 were approximately $4.2 million, compared to $2.2 million for the same period in 2017, driven primarily by increased employee-related expenses due to increase in headcount and increased consulting and professional fees.

- Net loss for the second quarter 2018 was $12.4 million, or $0.54 per share, compared to a net loss of $8.9 million, or $6.33 per share, for the same period in 2017. Weighted average common shares outstanding for the quarter ended June 30, 2018 were 22,966,314 and 1,412,308 for the quarter ended June 30, 2017.

Conference Call

Mersana Therapeutics will host a conference call and webcast at 8:00 am ET on August 15 to report financial results for the second quarter 2018 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 2895337. A live webcast of the presentation will be available on the Investors & Media section of the Mersana website at www.mersana.com.

About Dolaflexin

The Dolaflexin platform is designed to increase the efficacy, safety, and tolerability of ADCs by overcoming key limitations of existing technologies based on direct conjugation of a payload molecule to an antibody. Dolaflexin consists of Fleximer, a biodegradable, highly biocompatible, water soluble polymer, to which are attached multiple molecules of Mersana's proprietary auristatin drug payload using a linker specifically optimized for use with Mersana's polymer. The high water-solubility of the Fleximer polymer compensates for the low solubility of the payload, surrounding the payload and protecting it from aggregation and maintaining stability in circulation. Multiple molecules of this Dolaflexin polymer-drug conjugate can then be attached to an antibody of choice, which significantly increases the payload capacity of the resulting ADC. This approach differs from most other ADC technologies that conjugate the payload directly to the antibody. Using its Dolaflexin platform, Mersana has been able to generate ADCs with a very high Drug-to-Antibody Ratio (DAR), between 12 to 15, while maintaining desirable pharmacokinetics and drug-like properties in animal models. This represents a three to four-fold increase in DAR relative to traditional ADC approaches. The Dolaflexin platform also incorporates DolaLock technology, an engineered controlled bystander effect. AF-HPA, the initial auristatin drug release product, is freely cell permeable and has bystander-killing capabilities. Intra-tumor metabolism then facilitates the conversion of AF-HPA to AF, which is non-cell permeable, highly potent, and "locked" into the tumor. This enhancement improves both the efficacy and tolerability of Mersana's ADC candidates.

About Mersana Therapeutics

Mersana Therapeutics is a clinical-stage biopharmaceutical company using its differentiated and proprietary ADC platforms to develop highly targeted drugs with increased tolerability and expanded opportunities to deliver meaningful clinical benefit to patients. Mersana's first product candidate XMT-1522 is in Phase 1 clinical trials in patients with advanced tumors expressing HER2, including breast cancer, non-small-cell-lung-cancer (NSCLC) and gastric cancer. Mersana's second product candidate, XMT-1536, is in Phase 1 clinical trials in patients with tumors expressing NaPi2b, including ovarian cancer, NSCLC and other rare 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 are not statements of historical facts and are based on management's beliefs and assumptions and on information currently available. They are subject to risks and uncertainties that could cause the actual results and the implementation of the company's plans to vary materially, including the risk that our clinical trials will not be completed on schedule, if at all, and the risk that our early encouraging preclinical results for XMT-1522 and XMT-1536 are not necessarily predictive of the results of our

ongoing or future discovery programs or clinical studies. These risks are discussed in the company's filings with the U.S. Securities and Exchange Commission (SEC) including, without limitation, the company's Annual Report on Form 10-K filed on March 28, 2018 and subsequent SEC filings. Except as required by law, the company assumes no obligation to update these forward-looking statements publicly, even if new information becomes available in the future.

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

	June 30, 2018	December 31, 2017
Cash, cash equivalents and marketable securities	$ 96,509	$ 125,216
Working capital (1)	70,309	85,662
Total Assets	106,908	130,715
Total stockholders' equity	45,693	69,994

(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	Six months ended

	June 30, 2018	June 30, 2017	June 30, 2018	June 30, 2017
Collaboration revenue	$ 4,191	$ 3,727	$ 7,255	$ 8,017
Operating expenses:				
Research and development	12,663	10,627	24,919	20,733
General and administrative	4,231	2,204	7,801	4,501
Total operating expenses	16,894	12,831	32,720	25,234
Other income	349	158	709	209
Net income (loss)	$ (12,354)	$ (8,946)	$ (24,756)	$ (17,008)
Net income (loss) per share attributable to common stockholders — basic and diluted	$ (0.54)	$ (6.33)	$ (1.08)	$ (12.36)
Weighted-average number of common shares used in net loss per share attributable to common stockholders — basic and diluted	22,966,314	1,412,308	22,891,831	1,375,595

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