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 11, 2017

MERSANA THERAPEUTICS, INC.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation)

001-38129 (Commission File Number)

04-3562403 (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)

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 11, 2017, Mersana Therapeutics, Inc. issued a press release announcing its financial results for the quarter ended June 30, 2017. 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 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

Tabibia

No.	Description

99.1 Press Release issued by Mersana Therapeutics, Inc. on August 11, 2017.

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/ Anna Protopapas

Anna Protopapas

President and Chief Executive Officer

Date: August 11, 2017

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EXHIBIT INDEX

No.	Description
99.1	Press Release issued by Mersana Therapeutics, Inc. on August 11, 2017.
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Mersana Announces Second Quarter 2017 Financial Results and Provides Business Updates

- · Successfully Completed Initial Public Offering Raising \$75 Million in Gross Proceeds
- · Phase 1 Trial of XMT-1522 Continues Enrollment of Patients with Advanced Tumors Expressing HER2

CAMBRIDGE, Mass.— (August 11, 2017) — 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 proprietary Dolaflexin® platform, today reported business highlights and financial results for the quarter ended June 30, 2017.

"In this quarter, we achieved an important milestone with the successful completion of our initial public offering, raising \$75 million in gross proceeds to continue to progress our novel ADC pipeline. Our lead oncology drug candidate XMT-1522 is currently enrolling patients in a Phase 1 trial and we continue to expect to report interim results around the end of this year. We also remain on track to file our second IND shortly and begin clinical studies in early 2018 for XMT-1536, our potential first in class NaPi2b ADC," said Anna Protopapas, President and CEO of Mersana Therapeutics. "These efforts, as well as significant partnerships with leading pharmaceutical companies, Merck KGaA and Takeda, continue to demonstrate the ability of our proprietary Dolaflexin platform to generate promising drug candidates to help patients with devastating cancers."

Platform and Pipeline Highlights

XMT-1522: XMT-1522 is a Dolaflexin-based HER2-targeted ADC targeting tumors not addressed by currently approved HER2 therapies.

- Enrollment of the Phase 1 dose escalation study of XMT-1522 continues in patients with advanced tumors expressing HER2, including breast cancer, non-small-cell-lung-cancer (NSCLC) and gastric cancer with interim safety results expected around the end of 2017.
- · In June 2017, Mersana presented a Trials in Progress abstract on Phase 1 trial design of its lead program, XMT-1522, a novel HER2-targeted ADC, at the 2017 American Society of Clinical Oncology (ASCO) annual meeting in Chicago, IL.
- · In April 2017, at the American Association for Cancer Research (AACR) Annual Meeting, Mersana presented preclinical data on the biodistribution of XMT-1522 in mice carrying HER2-expressing tumors, providing in vivo proof-of-concept of Mersana's proprietary DolaLock payload technology. In this study, there was exposure to both the primary ADC payload release product and its active metabolite in the tumor for two weeks after a single dose of XMT-1522, with minimal exposure to either payload in normal tissues. The results presented support the potential of Mersana's Dolaflexin ADC platform to provide a greater therapeutic index by simultaneously improving efficacy via greater payload delivery and tolerability through the DolaLock payload technology.
- · Also at the AACR Annual Meeting in April 2017, Mersana presented preclinical data supporting the activity of XMT-1522 as monotherapy and in combination with immune checkpoint inhibitors in NSCLC models. We believe these data support the enrollment of NSCLC patients in the XMT-1522 early development program and its potential synergistic effect with checkpoint inhibitors.

XMT-1536: XMT-1536 is a potential first-in-class Dolaflexin ADC targeting NaPi2b-expressing tumors.

• The Phase 1 study of XMT-1536, a potential first in class NaPi2b ADC, remains on track for initiation of clinical trials in early 2018, with the in-life portion of the Good Laboratory Practice (GLP) toxicology studies now successfully completed.

Recent Corporate Highlights

In July 2017, Mersana completed its initial public offering, raising approximately \$75.0 million in gross proceeds through the sale of 5,000,000 shares of its common stock at an offering price of \$15.00 per share.

Second Quarter 2017 Financial Results

- · Cash, cash equivalents and marketable securities as of June 30, 2017 were \$77.2 million, compared with \$100.3 million as of December 31, 2016. Cash, cash equivalents and marketable securities as of June 30, 2017 did not include net proceeds of approximately \$67.5 million from the Company's initial public offering, as described above. The Company expects that its cash, cash equivalents and marketable securities will enable it to fund its operating plan through at least mid-2019.
- · Research and development expenses for the quarter were approximately \$10.6 million, compared to \$8.2 million for the same period in 2016. The increase was primarily due to additional personnel and external costs associated with continued clinical development of the Company's lead program XMT-1522 and IND-enabling studies and manufacturing activities associated with its second program, XMT-1536, which is expected to enter clinical development in early 2018.
- General and administrative expenses for the quarter were approximately \$2.2 million, compared to \$1.8 million for the same period in 2016. The increase was primarily due to additional personnel expense as the Company builds the infrastructure to support the growth of research and development organization and increased professional fees as the Company prepared to operate as a publicly traded company.
- · Net loss for the quarter was \$8.9 million, or \$6.33 per share, compared to a net loss of \$3.8 million, or \$3.00 per share, for the same period in 2016.

About the Dolaflexin Platform

Mersana's lead platform, Dolaflexin, is designed to increase the potency and efficacy of ADCs while simultaneously increasing the safety and tolerability. The backbone of Dolaflexin is Fleximer[®], a biodegradable, biocompatible, highly water soluble polymer, to which are attached multiple molecules of Mersana's proprietary auristatin drug payload. Because of the excellent physicochemical properties provided by the polymer, ADCs can be created with

drug-antibody ratios of 12-15, significantly higher than what is achieved with traditional ADC approaches. More drugs per antibody results has resulted in preclinical trials in more efficient payload delivery to the tumor cell, particularly for targets with low expression levels, leading to greater potency and efficacy. In addition, Mersana's proprietary auristatin payload contained in Dolaflexin has been designed with DolaLock technology, a controlled bystander effect, thereby increasing tolerability. The initial release product upon internalization of the ADC is a form of auristatin which is freely cell permeable and can kill adjacent cells. However, a metabolic "trigger" has been incorporated into the auristatin payload such that as it diffuses in the tumor environment it is converted into a highly active payload, which is no longer freely cell permeable, resulting in its becoming "locked" into the cell in which it is formed, thereby increasing tolerability.

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 lead product candidate, XMT-1522, is in Phase I clinical trials in patients with advanced tumors expressing HER2, including breast cancer, non-small-cell-lung-cancer (NSCLC) and gastric cancer patients. The Company expects that its second product candidate, XMT-1536, will enter clinical trials in early 2018. In addition, multiple partners are using Mersana's leading platform to advance their ADC pipelines.

Cautionary Note Regarding 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 possible or assumed timing of the Company's clinical trials, business strategies and financing plans.

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 presentation. 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 include, among other things, that preclinical testing may not be predictive of the results or success of ongoing or later preclinical or clinical trials and that the development of the Company's product candidates will take longer and/or cost more than planned, as well as those listed in the Company's Prospectus filed on June 29, 2017 with the Securities and Exchange Commission ("SEC"). 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.

Copies of the Company's Prospectus and other SEC filings are available by visiting EDGAR on the SEC website at http://www.sec.gov.

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Mersana Therapeutics, Inc

Selected Condensed Consolidated Balance Sheet Data

(in thousands)

(unaudited)

	June 30, 2017			December 31, 2016		
Cash, cash equivalents and marketable securities (1)	\$	77,232	\$	100,297		
Working capital (2)		48,134		73,787		
Total Assets		85,216		105,087		
Convertible preferred stock		94,450		94,450		
Total stockholders' deficit		(71,655)		(55,619)		

(1) Cash, cash equivalents and marketable securities as of June 30, 2017 did not include net proceeds of approximately \$67.5 million from the Company's initial public offering of its common stock, which was completed in July 2017.

(2) 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.

(in thousands, except share and per share data)

(unaudited)

	Three months ended				Six months ended			
	June 30, 2017		June 30, 2016		June 30, 2017		June 30, 2016	
Collaboration revenue	\$	3,727	\$	6,215	\$	8,017	\$	9,913
Operating expenses:								
Research and development		10,627		8,171		20,733		15,607
General and administrative		2,204		1,826		4,501		3,447
Total operating expenses		12,831		9,997		25,234		19,054
Other income		158		16		209		20
Net loss	\$	(8,946)	\$	(3,766)	\$	(17,008)	\$	(9,121)
Net loss per share attributable to common stockholders — basic								
and diluted	\$	(6.33)	\$	(3.00)	\$	(12.36)	\$	(7.31)
Weighted-average number of common shares used in net loss per share attributable to common stockholders — basic and								
diluted		1,412,308		1,254,104		1,375,595		1,248,548

Contacts

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