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 20, 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	**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))

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 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 8.01 Other Events.

On August 20, 2019, Mersana Therapeutics, Inc. (the "Company") issued a press release announcing the initiation of the expansion study of XMT-1536. The Company's press release is attached 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 20, 2019

EXHIBIT INDEX

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99.1	Press Release by Mersana Therapeutics, Inc., on August 20, 2019

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/ Brian DeSchuytner
Brian DeSchuytner
Senior Vice President, Finance & Product Strategy

Date: August 20, 2019

Exhibit 99.1

Mersana Therapeutics Announces Initiation of Expansion Study of XMT-1536 in Patients with Platinum-Resistant Ovarian Cancer and Non-Small Cell Lung Cancer (NSCLC) Adenocarcinoma

Dose Selected and First Patient Dosed

Maximum Tolerated Dose Not Yet Determined; Further Dose Escalation to Continue in Parallel to the Expansion Study

CAMBRIDGE, Mass., August 20, 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 announced the dosing of the first patient in the expansion portion of the Phase 1 study of XMT-1536, its first-in-class, wholly-owned Dolaflexin ADC targeting NaPi2b. The expansion cohorts will assess the efficacy, safety and tolerability of XMT-1536 at 36 mg/m^2 every four weeks in patients with platinum-resistant ovarian cancer and NSCLC adenocarcinoma. The Company also announced that it has not determined a maximum tolerated dose and that it plans to continue the dose escalation portion of the study in parallel.

“The initiation of the expansion cohorts is an important milestone for Mersana. We have chosen a dose that continues to show a promising efficacy and tolerability profile in heavily pretreated patients without selecting for NaPi2b expression,” said Anna Protopapas, President and CEO of Mersana Therapeutics. “The advancement of XMT-1536 brings us one step closer to proof of concept and our goal of significantly improving outcomes for people living with cancer.”

“We are excited to move our study into this important next phase of clinical development. With additional sites participating in the expansion cohorts we look forward to establishing the benefits of XMT-1536 in larger, more defined patient populations with high unmet medical need,” said Dirk Huebner, M.D., Chief Medical Officer of Mersana Therapeutics. “In addition, because we have not determined a maximum tolerated dose and have not observed the severe toxicities seen with other ADC platforms (e.g., neutropenia, peripheral neuropathy or ocular toxicity), we plan to continue dose escalation and will begin dosing patients at 43 mg/m^2. Taken together, these data will provide critical information to guide our path to registration for XMT-1536.”

The expansion study includes two patient cohorts. One is enrolling platinum-resistant ovarian cancer patients who have failed standard therapy and have had no more than three lines of prior therapy. The other cohort is enrolling NSCLC adenocarcinoma patients who have failed front line platinum-based chemotherapy, either in combination or sequentially treated with an anti-PD-1 or anti-PD-L1 therapy. Patients in the expansion portion of the XMT-1536 Phase 1 study will be treated with the 36 mg/m^2 once-every-four-week dosing regimen. Patients will not be pre-selected for NaPi2b expression, but eligibility criteria require archived tumor samples and fresh tumor biopsies when medically feasible. The study aims to enroll approximately 45 patients in each cohort.

Additional information can be found at: https://clinicaltrials.gov/ct2/show/NCT03319628?term=XMT-1536&rank=1

About XMT-1536

XMT-1536 is a first-in-class ADC targeting the sodium-dependent phosphate transport protein (NaPi2b) and utilizing the Dolaflexin platform to deliver an average of 10-15 DolaLock payload molecules per antibody. The NaPi2b antigen is broadly expressed in 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 and NSCLC adenocarcinoma. More information on the ongoing Phase 1 clinical trial can be found at clinicaltrials.gov (NCT03319628).

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 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 and NSCLC adenocarcinoma. 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.

Contact:

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