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 14, 2020

MERSANA THERAPEUTICS, INC.

(Exact name of registrant as specified in its charter)

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:

□ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

□ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

□ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

□ 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 \boxtimes

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.

(State or other jurisdiction of incorporation)

Delaware

Item 8.01 Other Events.

On May 14, 2020, Mersana Therapeutics, Inc. (the "Company") issued a press release announcing the initiation of the dose escalation study of XMT-1592. The Company's press release is attached as Exhibit 99.1 to this Current Report on Form 8-K.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

Exhibit No.Description99.1Press Release by Mersana Therapeutics, Inc., on May 14, 2020

EXHIBIT INDEX

No.	Description	
<u>99.1</u>	Press Release by Mersana Therapeutics, Inc., on May 14, 2020	

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: May 14, 2020

Mersana Therapeutics Announces Initiation of XMT-1592 Phase 1 Dose Escalation Study

CAMBRIDGE, Mass., May 14, 2020 -- 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 initiation of patient dosing in a Phase 1 dose escalation study evaluating XMT-1592, its Dolasynthen ADC targeting NaPi2b. XMT-1592 is the Company's first clinical candidate created using its new customizable and homogenous Dolasynthen ADC platform.

"XMT-1592 has shown a differentiated preclinical profile, particularly in NSCLC where we saw a four-fold increase in efficacy over XMT-1536, consistent with increased exposure to the DolaLock payload in the tumor, and we look forward to working to validate the clinical differentiation of this candidate," said Anna Protopapas, President and Chief Executive Officer of Mersana Therapeutics. "XMT-1592 also has the potential to further extend our leadership position in NaPi2b-expressing malignancies, and we are very pleased to have reached this important 2020 goal of advancing this promising ADC candidate into the clinic."

This Phase 1, open-label, dose-escalation study is designed to determine the maximum tolerated dose (MTD) of XMT-1592 in patients with non-small cell lung cancer (NSCLC) adenocarcinoma and ovarian cancer. Upon completion of the dose-escalation portion of the study, the Company will determine the path forward to further assess the safety and activity of XMT-1592 in the expansion portion of the study.

About XMT-1592

XMT-1592 is an ADC targeting NaPi2b-expressing tumors. XMT-1592 was created with the Dolasynthen platform, retaining the Company's proprietary NaPi2b antibody and auristatin DolaLock payload with controlled bystander effect plus the added benefits of site-specific conjugation, precise drug-toantibody ratio, and even greater hydrophilicity for further enhanced drug-like properties and tumor exposure. In preclinical studies, Dolasynthen has shown four times greater efficacy in a patient-derived lung tumor model in comparison to Dolaflexin, a platform that has already shown success when targeted to NaPi2b.

About Mersana Therapeutics

Mersana Therapeutics is a clinical-stage biopharmaceutical company using its differentiated and proprietary ADC platforms to rapidly develop novel ADCs with optimal efficacy, safety and tolerability to meaningfully improve the lives of people fighting cancer. Mersana's lead product candidate, XMT-1536, is in the expansion portion of a Phase 1 proof-of-concept clinical study in patients with ovarian cancer and NSCLC adenocarcinoma. XMT-1592, Mersana's second ADC product candidate targeting NaPi2b-expressing tumors, was created using Mersana's customizable and homogeneous Dolasynthen platform and is in the dose escalation portion of a Phase 1 proof-of-concept clinical study. The Company's early stage programs include a B7-H4 targeting ADC, as well as a STING-agonist ADC developed using the Company's Immunosynthen platform. In addition, multiple partners are using Mersana's Dolaflexin 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. Forwardlooking statements include information concerning the Company's business strategy and the design, progression and timing of its clinical trials. Forwardlooking statements generally can be identified by terms such as "aims," "anticipates," "believes," "contemplates," "continues," "could," "estimates," "expects," "goal," "intends," "may," "on track," "plans," "possible," "potential," "predicts," "projects," "seeks," "should," "target," "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 February 28, 2020, with the Securities and Exchange Commission ("SEC"), the Company's Quarterly Report on Form 10-Q filed on May 8, 2020 and subsequent SEC filings. In addition, while we expect that the COVID-19 pandemic might adversely affect the Company's preclinical and clinical development efforts, business operations and financial results, the extent of the impact on the Company's operations and the value of and market for the Company's 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. 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.

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