

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

FORM S-8

**REGISTRATION STATEMENT UNDER
THE SECURITIES ACT OF 1933**

MERSANA THERAPEUTICS, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or Other Jurisdiction of Incorporation
or Organization)

04-3562403
(I.R.S. Employer
Identification No.)

**840 Memorial Drive
Cambridge, MA**
(Address of Principal Executive Offices)

02139
(Zip Code)

**Mersana Therapeutics, Inc. 2017 Stock Incentive Plan
Mersana Therapeutics, Inc. 2017 Employee Stock Purchase Plan**
(Full Title of the Plans)

Martin J. Huber, Jr., M.D.
President and Chief Executive Officer
Mersana Therapeutics, Inc.
840 Memorial Drive
Cambridge, MA 02139
(Name and Address of Agent For Service)

(617) 498-0020
(Telephone Number, Including Area Code, of Agent For Service)

Copies to:

Alejandra Carvajal, Esq.
Chief Legal Officer, Secretary
Mersana Therapeutics, Inc.
840 Memorial Drive
Cambridge, MA 02139
(617) 498-0020

Rosemary G. Reilly, Esq.
Craig Hilts, Esq.
Wilmer Cutler Pickering Hale and Dorr LLP
60 State Street
Boston, Massachusetts 02109
(617) 526-6000

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer
Non-accelerated filer

Accelerated filer
Smaller reporting company
Emerging growth company

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 7(a)(2)(B) of the Securities Act.

EXPLANATORY NOTE

This Registration Statement has been filed by Mersana Therapeutics, Inc. (the “Registrant”) to register (i) 4,828,469 additional shares of common stock, \$0.0001 par value per share, of the Registrant (the “Common Stock”) under the Mersana Therapeutics, Inc. 2017 Stock Incentive Plan (the “2017 Plan”), pursuant to the provisions of the 2017 Plan providing for an automatic increase in the number of shares reserved and available for issuance under the 2017 Plan on January 1, 2024 and (ii) 450,000 additional shares of Common Stock under the Mersana Therapeutics, Inc. 2017 Employee Stock Purchase Plan, as amended (the “2017 ESPP” and, together with the 2017 Plan, the “Plans”), pursuant to the provisions of the 2017 ESPP providing for an automatic increase in the number of shares reserved and available for issuance under the 2017 ESPP on January 1, 2024.

The Registrant previously filed with the Securities and Exchange Commission (the “SEC”) (i) registration statements on Form S-8 (File Nos. [333-270110](#), [333-236775](#), [333-230159](#) and [333-219388](#)) on February 28, 2023, February 28, 2020, March 8, 2019 and July 21, 2017, respectively, with respect to the Plans (the “Prior Combined Registration Statements”) and (ii) registration statements on Form S-8 (File Nos. [333-263085](#), [333-255975](#) and [333-222845](#)) on February 28, 2022, May 10, 2021 and February 2, 2018, respectively, with respect to the 2017 Plan (collectively, the “Prior 2017 Plan Registration Statements” and together with the Prior Combined Registration Statements, the “Prior Registration Statements”). This Registration Statement relates to securities of the same class as that to which the Prior Registration Statements relate and is submitted in accordance with General Instruction E to Form S-8 regarding registration of additional securities. In accordance with such instruction, except as otherwise set forth below, the contents of the Prior Registration Statements relating to the Plans are incorporated herein by reference.

Item 8. Exhibits.

<u>Number</u>	<u>Description</u>
4.1	Fifth Amended and Restated Certificate of Incorporation of the Registrant, as amended, as of June 8, 2023 (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K (File No. 001-38129) filed with the SEC on June 9, 2023).
4.2	Second Amended and Restated Bylaws of the Registrant (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K (File No. 001-38129) filed with the SEC on March 31, 2023).
5.1*	Opinion of Wilmer Cutler Pickering Hale and Dorr LLP, counsel to the Registrant
23.1*	Consent of Wilmer Cutler Pickering Hale and Dorr LLP (included in Exhibit 5.1)
23.2*	Consent of Ernst & Young LLP, independent registered public accounting firm
24.1*	Power of attorney (included on the signature pages of this registration statement)
99.1	Mersana Therapeutics, Inc. 2017 Stock Incentive Plan (incorporated by reference to Exhibit 10.22 to Amendment No. 1 to Registration Statement on Form S-1 (File No. 333-218412) filed with the SEC on June 16, 2017).
99.2	Form of Incentive Stock Option Agreement under the Mersana Therapeutics, Inc. 2017 Stock Incentive Plan (incorporated by reference to Exhibit 10.23 to Amendment No. 1 to Registration Statement on Form S-1 (File No. 333-218412) filed with the SEC on June 16, 2017).
99.3	Form of Nonqualified Stock Option Agreement under the Mersana Therapeutics, Inc. 2017 Stock Incentive Plan (incorporated by reference to Exhibit 10.24 to Amendment No. 1 to Registration Statement on Form S-1 (File No. 333-218412) filed with the SEC on June 16, 2017).
99.4	Form of Restricted Stock Unit Agreement for Employees under the Mersana Therapeutics, Inc. 2017 Stock Incentive Plan (incorporated by reference to Exhibit 10.2 to the Quarterly Report on Form 10-Q (File No. 001-38129) filed with the SEC on August 8, 2023).
99.5	Form of Restricted Stock Unit Agreement for Non-Employee Directors under the Mersana Therapeutics, Inc. 2017 Stock Incentive Plan (incorporated by reference to Exhibit 10.3 to the Quarterly Report on Form 10-Q (File No. 001-38129) filed with the SEC on August 8, 2023).
99.6	Mersana Therapeutics, Inc. 2017 Employee Stock Purchase Plan, as amended (incorporated by reference to Exhibit 10.40 to the Annual Report on Form 10-K (File No. 001-38129) filed with the SEC on February 28, 2023).
107*	Filing Fee Table

* Filed herewith.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Cambridge, Commonwealth of Massachusetts, on January 12, 2024.

MERSANA THERAPEUTICS, INC.

By: /s/ Martin H. Huber, Jr., M.D.

Name: Martin H. Huber, Jr., M.D.

President and Chief Executive Officer

SIGNATURES AND POWER OF ATTORNEY

We, the undersigned officers and directors of Mersana Therapeutics, Inc., hereby severally constitute and appoint Martin H. Huber, Jr. and Brian DeSchuytner, and each of them singly (with full power to each of them to act alone), our true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution in each of them for him or her and in his or her name, place and stead, and in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement on Form S-8 of Mersana Therapeutics, Inc. and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as full to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them or their or his or her substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities indicated on January 12, 2024.

Signature	Title
<u>/s/ Martin H. Huber, Jr., M.D.</u> Martin H. Huber, Jr., M.D.	President, Chief Executive Officer and Director <i>(Principal Executive Officer)</i>
<u>/s/ Brian DeSchuytner</u> Brian DeSchuytner	Senior Vice President, Chief Operating Officer and Chief Financial Officer <i>(Principal Financial Officer)</i>
<u>/s/ Ashish Mandelia</u> Ashish Mandelia	Vice President, Chief Accounting Officer <i>(Principal Accounting Officer)</i>
<u>/s/ David Mott</u> David Mott	Director, Chairman of the Board
<u>/s/ Lawrence Alleva</u> Lawrence Alleva	Director
<u>/s/ Willard H. Dere, M.D.</u> Willard H. Dere, M.D.	Director
<u>/s/ Allene M. Diaz</u> Allene M. Diaz	Director
<u>/s/ Andrew A. F. Hack, M.D., Ph.D.</u> Andrew A. F. Hack, M.D., Ph.D.	Director
<u>Kristen Hege, M.D.</u>	Director
<u>/s/ Anna Protopapas</u> Anna Protopapas	Director

January 12, 2024

Mersana Therapeutics, Inc.
840 Memorial Drive
Cambridge, Massachusetts 02139

Re: Registration Statement on Form S-8; 2017 Stock Incentive Plan; 2017 Employee Stock Purchase Plan

Ladies and Gentlemen:

We have assisted in the preparation of a Registration Statement on Form S-8 (the "Registration Statement") to be filed with the Securities and Exchange Commission (the "Commission") under the Securities Act of 1933, as amended (the "Securities Act"), relating to (i) an aggregate of 4,828,469 additional shares (the "Plan Shares") of common stock, \$0.0001 par value per share (the "Common Stock"), of Mersana Therapeutics, Inc., a Delaware corporation (the "Company"), issuable under the Company's 2017 Stock Incentive Plan (the "2017 Plan"), and (ii) an aggregate of 450,000 additional shares (the "ESPP Shares" and together with the Plan Shares, the "Shares") of Common Stock issuable under the Company's 2017 Employee Stock Purchase Plan (the "2017 ESPP" and together with the 2017 Plan, the "Plans").

We have examined the Certificate of Incorporation and Bylaws of the Company, each as amended and restated to date, and originals, or copies certified to our satisfaction, of all pertinent records of the meetings of the board of directors and stockholders of the Company, the Registration Statement, the Plans and such other documents relating to the Company as we have deemed material for the purposes of this opinion.

In our examination of the foregoing documents, we have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as certified, photostatic or other copies, the authenticity of the originals of any such documents and the legal competence of all signatories to such documents.

We assume that the appropriate action will be taken, prior to the offer and sale of the Shares in accordance with the Plans, as applicable, to register and qualify the Shares for sale under all applicable state securities or "blue sky" laws.

We express no opinion herein as to the laws of any state or jurisdiction other than the General Corporation Law of the State of Delaware.

Wilmer Cutler Pickering Hale and Dorr LLP, 60 State Street, Boston, Massachusetts 02109

Beijing Berlin Boston Brussels Denver Frankfurt London Los Angeles New York Palo Alto San Francisco Washington

It is understood that this opinion is to be used only in connection with the offer and sale of the Shares while the Registration Statement is in effect.

Please note that we are opining only as to the matters expressly set forth herein, and no opinion should be inferred as to any other matters.

Based on the foregoing, we are of the opinion that the Shares have been duly authorized for issuance and, when the Shares are issued and paid for in accordance with the terms and conditions of the Plans, as applicable, the Shares will be validly issued, fully paid and nonassessable.

We hereby consent to the filing of this opinion with the Commission in connection with the Registration Statement in accordance with the requirements of Item 601(b)(5) of Regulation S-K under the Securities Act. In giving such consent, we do not hereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission.

Very truly yours,

/s/ Wilmer Cutler Pickering Hale and Dorr LLP

WILMER CUTLER PICKERING HALE AND DORR LLP

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statement (Form S-8) pertaining to the 2017 Stock Incentive Plan and the 2017 Employee Stock Purchase Plan of Mersana Therapeutics, Inc. of our report dated February 28, 2023, with respect to the consolidated financial statements of Mersana Therapeutics, Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2022, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP
Boston, Massachusetts
January 12, 2024

Calculation of Filing Fee Tables

Form S-8
(Form Type)Mersana Therapeutics, Inc.
(Exact Name of Registrant as Specified in its Charter)

Table 1—Newly Registered Securities

Security Type	Security Class Title	Fee Calculation Rule	Amount Registered (1)	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
Equity	Common Stock, \$0.0001 par value per share	Other	5,278,469 (2)	\$2.48 (3)	\$13,090,604 (3)	\$147.60 per \$1,000,000	\$1,932.18
Total Offering Amounts					\$13,090,604		\$1,932.18
Total Fee Offsets							—
Net Fee Due							\$1,932.18

- (1) In accordance with Rule 416 under the Securities Act of 1933, as amended (the “Securities Act”), this Registration Statement shall be deemed to cover any additional securities that may from time to time become issuable by reason of any stock dividend, stock split, recapitalization or any other similar transaction effected without the receipt of consideration which results in an increase in the number of outstanding shares of the Registrant’s common stock.
- (2) Consists of (a) 4,828,469 additional shares issuable under the Mersana Therapeutics, Inc. 2017 Stock Incentive Plan and (b) 450,000 additional shares issuable under the Mersana Therapeutics, Inc. 2017 Employee Stock Purchase Plan, as amended (the “2017 ESPP”).
- (3) Estimated solely for the purpose of calculating the registration fee pursuant to Rules 457(c) and 457(h) under the Securities Act. The proposed maximum offering price per share and maximum aggregate offering price are calculated based on \$2.51, the average of the high and low sale prices of the Registrant’s common stock as reported on the Nasdaq Global Select Market on January 8, 2024. Pursuant to the 2017 ESPP, the purchase price of the shares of common stock reserved for issuance thereunder will be 85% of the lower of the fair market value of the common stock on (i) the first trading day of the applicable offering period and (ii) the exercise date.