
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, DC 20549

SCHEDULE 13D
(Rule 13d-101)

**Information to be Included in Statements Filed Pursuant
to § 240.13d-1(a) and Amendments Thereto Filed
Pursuant to § 240.13d-2(a)**

**Under the Securities Exchange Act of 1934
(Amendment No. 5)**

MERSANA THERAPEUTICS, INC.
(Name of Issuer)

**Common Stock, \$0.0001
par value per share
(Title of Class of Securities)**

59045L106
(CUSIP Number)

**Bain Capital Life Sciences Investors, LLC
200 Clarendon Street
Boston, MA 02116
617-516-2000**

(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

May 9, 2022
(Date of Event Which Requires Filing of This Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §§ 240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box.

Note. Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See § 240.13d-7 for other parties to whom copies are to be sent.

The information required on the remainder of this cover page shall not be deemed to be “filed” for the purpose of Section 18 of the Securities Exchange Act of 1934, as amended (“Act”), or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

1	Names of reporting persons Bain Capital Life Sciences Fund II, L.P.	
2	Check the appropriate box if a member of a group (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC use only	
4	Source of funds WC	
5	Check if disclosure of legal proceedings is required pursuant to Item 2(d) or 2(e) <input type="checkbox"/>	
6	Citizenship or place of organization Cayman Islands	
Number of shares beneficially owned by each reporting person with:	7	Sole voting power 0 shares of Common Stock
	8	Shared voting power 3,294,423 shares of Common Stock
	9	Sole dispositive power 0 shares of Common Stock
	10	Shared dispositive power 3,294,423 shares of Common Stock
11	Aggregate amount beneficially owned by each reporting person 3,294,423 shares of Common Stock	
12	Check if the aggregate amount in Row (11) excludes certain shares <input type="checkbox"/>	
13	Percent of class represented by amount in Row (11) 3.4%	
14	Type of reporting person PN	

1	Names of reporting persons BCIP Life Sciences Associates, LP	
2	Check the appropriate box if a member of a group (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC use only	
4	Source of funds WC	
5	Check if disclosure of legal proceedings is required pursuant to Item 2(d) or 2(e) <input type="checkbox"/>	
6	Citizenship or place of organization Delaware	
Number of shares beneficially owned by each reporting person with:	7	Sole voting power 0 shares of Common Stock
	8	Shared voting power 401,244 shares of Common Stock
	9	Sole dispositive power 0 shares of Common Stock
	10	Shared dispositive power 401,244 shares of Common Stock
11	Aggregate amount beneficially owned by each reporting person 401,244 shares of Common Stock	
12	Check if the aggregate amount in Row (11) excludes certain shares <input type="checkbox"/>	
13	Percent of class represented by amount in Row (11) 0.4%	
14	Type of reporting person PN	

1	Names of reporting persons BCLS II Investco, LP	
2	Check the appropriate box if a member of a group (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC use only	
4	Source of funds WC	
5	Check if disclosure of legal proceedings is required pursuant to Item 2(d) or 2(e) <input type="checkbox"/>	
6	Citizenship or place of organization Delaware	
Number of shares beneficially owned by each reporting person with:	7	Sole voting power 0 shares of Common Stock
	8	Shared voting power 4,041,733 shares of Common Stock
	9	Sole dispositive power 0 shares of Common Stock
	10	Shared dispositive power 4,041,733 shares of Common Stock
11	Aggregate amount beneficially owned by each reporting person 4,041,733 shares of Common Stock	
12	Check if the aggregate amount in Row (11) excludes certain shares <input type="checkbox"/>	
13	Percent of class represented by amount in Row (11) 4.2%	
14	Type of reporting person PN	

This Amendment No. 5 to Schedule 13D relates to the Common Stock of Mersana Therapeutics, Inc. (the “Issuer”) and amends the initial statement on Schedule 13D filed by the Reporting Persons on April 17, 2020, as amended by Amendment No. 1 filed on January 12, 2021, Amendment No. 2 filed on January 3, 2022, Amendment No. 3 filed on February 8, 2022 and Amendment No. 4 filed on April 14, 2022 (the “Initial Statement” and, as further amended by this Amendment No. 5, the “Schedule 13D”). Capitalized terms used but not defined herein shall have the meanings ascribed to them in the Initial Statement.

On May 9, 2022, the Issuer filed its Quarterly Report on Form 10-Q for the quarter ended March 31, 2022 with the Securities and Exchange Commission, which disclosed that the Issuer’s total number of outstanding shares of Common Stock had increased to 96,991,298. This Amendment No. 5 is being filed to report a decrease of more than one percent in the percentage of outstanding shares of Common Stock that the Reporting Persons may be deemed to beneficially own, which resulted solely from the increase in the number of shares of Common Stock reported as outstanding by the Issuer.

Item 5. Interest in Securities of the Issuer

Item 5 of the Initial Statement is hereby amended and restated as follows:

The information set forth in Items 2 and 3 and on the cover pages of this Schedule 13D is incorporated by reference in its entirety into this Item 5.

(a) – (c) As of the date hereof, BCLS II holds 3,294,423 shares of Common Stock, representing approximately 3.4% of the outstanding shares of Common Stock, BCIPLS holds 401,244 shares of Common Stock, representing approximately 0.4% of the outstanding shares of Common Stock, and BCLS II Investco holds 4,041,733 shares of Common Stock, representing approximately 4.2% of the outstanding shares of Common Stock. As a result of the foregoing and the relationships described in Item 2(a) of this Schedule 13D, the Reporting Persons may be deemed to beneficially own in the aggregate 7,737,400 shares of Common Stock, representing approximately 8.0% of the outstanding shares of Common Stock. The percentage of the outstanding shares of Common Stock held by the Reporting Persons is based on 96,991,298 shares of Common Stock outstanding as of May 5, 2022, as reported by the Issuer in its Quarterly Report on Form 10-Q for the quarter ended March 31, 2022.

(d) Except as otherwise described in this Item 5, no one other than the Reporting Persons has the right to receive, or the power to direct the receipt of, dividends from, or the proceeds from the sale of, any of the Common Stock beneficially owned by the Reporting Persons as described in this Item 5.

(e) Not applicable.

SIGNATURES

After reasonable inquiry and to the best of its knowledge and belief, the undersigned certifies that the information set forth in this statement is true, complete and correct.

Dated: May 11, 2022

Bain Capital Life Sciences Fund II, L.P.

By: Bain Capital Life Sciences Investors II, LLC,
its general partner

By: Bain Capital Life Sciences Investors, LLC,
its manager

By: /s/ Andrew Hack

Name: Andrew Hack

Title: Managing Director

BCIP Life Sciences Associates, LP

By: Boylston Coinvestors, LLC,
its general partner

By: /s/ Andrew Hack

Name: Andrew Hack

Title: Authorized Signatory

BCLS II Investco, LP

By: BCLS II Investco (GP), LLC,
its general partner

By: Bain Capital Life Sciences Fund II, L.P.,
its manager

By: Bain Capital Life Sciences Investors II, LLC,
its general partner

By: Bain Capital Life Sciences Investors, LLC,
its manager

By: /s/ Andrew Hack

Name: Andrew Hack

Title: Managing Director