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

SCHEDULE 13D

**Under the Securities Exchange Act of 1934
(Amendment No. 4)***

Synlogic, Inc. (f/k/a Mirna Therapeutics, Inc.)

(Name of Issuer)

Common Stock, \$.001 par value

(Title of Class of Securities)

87166L209

(CUSIP Number)

**Louis S. Citron, Esq.
New Enterprise Associates
1954 Greenspring Drive, Suite 600, Timonium, MD 21093
(410) 842-4000**

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

October 3, 2023

(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 remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

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 ("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. New Enterprise Associates 14, L.P.		
2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (see instructions) (a) <input type="checkbox"/> (b) <input type="checkbox"/>		
3.	SEC USE ONLY		
4.	SOURCE OF FUNDS (see instructions) WC		
5.	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 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	
	8.	SHARED VOTING POWER 2,922,774 Shares	
	9.	SOLE DISPOSITIVE POWER 0 Shares	
	10.	SHARED DISPOSITIVE POWER 2,922,774 Shares	
11.	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 2,922,774 Shares		
12.	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (see instructions) <input type="checkbox"/>		
13.	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 34.4%		
14.	TYPE OF REPORTING PERSON (see instructions) PN		

1.	NAMES OF REPORTING PERSONS. NEA Partners 14, L.P.		
2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (see instructions) (a) <input type="checkbox"/> (b) <input type="checkbox"/>		
3.	SEC USE ONLY		
4.	SOURCE OF FUNDS (see instructions) AF		
5.	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) <input type="checkbox"/>		
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13.	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 34.4%		
14.	TYPE OF REPORTING PERSON (see instructions) PN		

1.	NAMES OF REPORTING PERSONS. NEA 14 GP, LTD		
2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (see instructions) (a) <input type="checkbox"/> (b) <input type="checkbox"/>		
3.	SEC USE ONLY		
4.	SOURCE OF FUNDS (see instructions) AF		
5.	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) <input type="checkbox"/>		
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14.	TYPE OF REPORTING PERSON (see instructions) CO		

1.	NAMES OF REPORTING PERSONS. Forest Baskettt		
2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (see instructions) (a) <input type="checkbox"/> (b) <input type="checkbox"/>		
3.	SEC USE ONLY		
4.	SOURCE OF FUNDS (see instructions) AF		
5.	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) <input type="checkbox"/>		
6.	CITIZENSHIP OR PLACE OF ORGANIZATION United States citizen		
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7.	SOLE VOTING POWER 0 shares	
	8.	SHARED VOTING POWER 2,922,774 Shares	
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13.	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 34.4%		
14.	TYPE OF REPORTING PERSON (see instructions) IN		

1.	NAMES OF REPORTING PERSONS. Anthony A. Florence, Jr.		
2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (see instructions)		(a) <input type="checkbox"/> (b) <input type="checkbox"/>
3.	SEC USE ONLY		
4.	SOURCE OF FUNDS (see instructions) AF		
5.	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)		<input type="checkbox"/>
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14.	TYPE OF REPORTING PERSON (see instructions) IN		

1.	NAMES OF REPORTING PERSONS. Patrick J. Kerins	
2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (see instructions)	(a) <input type="checkbox"/> (b) <input type="checkbox"/>
3.	SEC USE ONLY	
4.	SOURCE OF FUNDS (see instructions) AF	
5.	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)	<input type="checkbox"/>
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13.	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 34.4%	
14.	TYPE OF REPORTING PERSON (see instructions) IN	

1.	NAMES OF REPORTING PERSONS. Scott D. Sandell		
2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (see instructions)		(a) <input type="checkbox"/> (b) <input type="checkbox"/>
3.	SEC USE ONLY		
4.	SOURCE OF FUNDS (see instructions) AF		
5.	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e)		<input type="checkbox"/>
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14.	TYPE OF REPORTING PERSON (see instructions) IN		

Item 1. Security and Issuer.

This Amendment No. 4 (“Amendment No. 4”) to Schedule 13D amends and supplements the statement on 13D originally filed on October 14, 2015, Amendment No. 1 thereto filed on May 16, 2017, Amendment No. 2 thereto filed on September 7, 2017 and Amendment No. 3 thereto filed on February 2, 2018, relating to the common stock, \$.001 par value (the “Common Stock”) of Synlogic, Inc. (f/k/a Mirna Therapeutics, Inc.) (the “Issuer”) having its principal executive office at 301 Binney St., Suite 402, Cambridge, Massachusetts 02142.

Certain terms used but not defined in this Amendment No. 4 have the meanings assigned thereto in the Schedule 13D (including Amendment No. 1, Amendment No. 2 and Amendment No. 3 thereto). Except as specifically provided herein, this Amendment No. 4 does not modify any of the information previously reported on the Schedule 13D (including Amendment No. 1, Amendment No. 2 and Amendment No. 3 thereto).

Item 2. Identity and Background.

This statement is being filed by:

(a) New Enterprise Associates 14, L.P. (“NEA 14”);

(b) NEA Partners 14, L.P. (“NEA Partners 14”), which is the sole general partner of NEA 14; and NEA 14 GP, LTD (“NEA 14 LTD” and, together with NEA Partners 14, the “Control Entities”), which is the sole general partner of NEA Partners 14; and

(c) Forest Baskett (“Baskett”), Anthony A. Florence, Jr. (“Florence”), Patrick J. Kerins (“Kerins”) and Scott D. Sandell (“Sandell”) (together, the “Directors”) and M. James Barrett (“Barrett”), Peter J. Barris (“Barris”), David M. Mott (“Mott”), Ravi Viswanathan (“Viswanathan”) and Peter W. Sonsini (“Sonsini”). The Directors are the directors of NEA 14 LTD.

The persons named in this Item 2 are referred to individually herein as a “Reporting Person” and collectively as the “Reporting Persons.”

The address of the principal business office of NEA 14 and each Control Entity and Sandell is New Enterprise Associates, 1954 Greenspring Drive, Suite 600, Timonium, MD 21093. The address of the principal business office of Kerins is New Enterprise Associates, 5425 Wisconsin Avenue, Suite 800, Chevy Chase, MD 20815. The address of the principal business office of Baskett is New Enterprise Associates, 2855 Sand Hill Road, Menlo Park, California 94025. The address of the principal business office of Florence is New Enterprise Associates, 104 Fifth Avenue, 19th Floor, New York, NY 10011.

The principal business of NEA 14 is to invest in and assist growth-oriented businesses located principally in the United States. The principal business of NEA Partners 14 is to act as the sole general partner of NEA 14. The principal business of NEA 14 LTD is to act as the sole general partner of NEA Partners 14. The principal business of each of the Directors is to manage the Control Entities, NEA 14 and a number of affiliated partnerships with similar businesses.

During the five years prior to the date hereof, none of the Reporting Persons has been convicted in a criminal proceeding or has been a party to a civil proceeding ending in a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.

NEA 14 and NEA Partners 14 are exempted limited partnerships organized under the laws of the Cayman Islands. NEA 14 LTD is an exempted company organized under the laws of the Cayman Islands. Each of the Directors is a United States citizen.

Item 3. Source and Amount of Funds or Other Consideration.

On October 3, 2023, the Issuer completed the closing of an underwritten offering (the “Offering”) of 3,921,928 shares of Common Stock, pre-funded warrants to purchase up to 3,472,435 shares of Common Stock (the “Pre-Funded Warrants”) and accompanying common stock warrants to purchase up to 7,394,363 shares of Common Stock (the “Purchase Warrants”). Each share of Common Stock was sold together with one Purchase Warrant at the public offering price of \$2.84 per share, less underwriting discounts and commissions. At such closing, NEA 14 purchased an aggregate of 2,640,845 shares of the Issuer’s Common Stock at the Offering price of \$2.84 per share with a corresponding number of Purchase Warrants exercisable at \$3.408 per share (the “NEA 14 Purchase Warrants”). The NEA 14 Purchase Warrants are exercisable at the option of NEA 14 at any time after their issuance; provided, that the NEA 14 Purchase Warrants carry a limitation on exercise preventing NEA from exercise if such exercise results in NEA beneficially owning in excess of 4.99% (or, at the election of NEA 14, 9.99%) of the number of shares of the Issuer’s Common Stock, which percentage can be increased or decreased at the option of NEA 14 upon 61 days prior notice (the “Beneficial Ownership Limitation”).

Prior to the Offering and taking into account the 15-for-1 reverse stock split of the Issuer’s issued and outstanding Common Stock as of September 27, 2023 (as further described in the Issuer’s Form 8-K filed with the Securities and Exchange Commission (“SEC”) on September 28, 2023), NEA 14 held 281,929 shares of the Issuer’s Common Stock. After giving effect to the Beneficial Ownership Limitation, NEA 14 is now deemed to hold 2,922,774 shares of the Issuer’s Common Stock (the “NEA 14 Shares”).

The working capital of NEA 14 is the source of the funds for the purchase of the NEA 14 Shares. No part of the purchase price of the NEA 14 Shares is represented by funds or other consideration borrowed or otherwise obtained for the purpose of acquiring, holding, trading or voting the NEA 14 Shares.

Item 5. Interest in Securities of the Issuer.

- (a) NEA 14 is the record owner of the NEA 14 Shares. As the sole general partner of NEA 14, NEA Partners 14 may be deemed to own beneficially the NEA 14 Shares. As the sole general partner of NEA Partners 14, NEA 14 LTD may be deemed to own beneficially the NEA 14 Shares. As members of NEA 14 LTD, each of the Directors may be deemed to own beneficially the NEA 14 Shares.

Each Reporting Person disclaims beneficial ownership of the NEA 14 Shares other than those shares which such person owns of record.

The percentage of outstanding Common Stock of the Issuer which may be deemed to be beneficially owned by each Reporting Person is set forth on Line 13 of such Reporting Person’s cover sheet. Such percentage was calculated based on the 8,496,185 shares of Common Stock reported to be outstanding immediately after the Offering on the Issuer’s prospectus filed under Rule 424(b)(4), filed with the SEC on October 2, 2023.

- (b) Regarding the number of shares as to which such person has:
- (i) sole power to vote or to direct the vote: See line 7 of cover sheets
 - (ii) shared power to vote or to direct the vote: See line 8 of cover sheets
 - (iii) sole power to dispose or to direct the disposition: See line 9 of cover sheets
 - (iv) shared power to dispose or to direct the disposition: See line 10 of cover sheets
-

- (c) Except as set forth in Item 3 above, none of the Reporting Persons has effected any transaction in the Common Stock during the last 60 days.
- (d) No other person is known to have the right to receive or the power to direct the receipt of dividends from, or any proceeds from the sale of, Shares beneficially owned by any of the Reporting Persons.
- (e) Each of Barrett, Barris, Mott, Viswanathan and Sonsini has ceased to beneficially own five percent (5%) or more of the Issuer's Common Stock as a result of ceasing to be a director of NEA 14 LTD.

Item 6. Contracts, Arrangements, Undertakings or Relationships with Respect to Securities of the Issuer.

Not applicable.

Item 7. Material to be Filed as Exhibits.

Exhibit 1 – Agreement regarding filing of joint Schedule 13D.

Exhibit 2 – Power of Attorney regarding filings under the Securities Exchange Act of 1934, as amended.

SIGNATURE

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

EXECUTED this 13th day of October, 2023.

NEW ENTERPRISE ASSOCIATES 14, L.P.

By: NEA PARTNERS 14, L.P.
General Partner

By: NEA 14 GP, LTD
General Partner

By: _____
*
Scott D. Sandell
Director

NEA PARTNERS 14, L.P.

By: NEA 14 GP, LTD
General Partner

By: _____
*
Scott D. Sandell
Director

NEA 14 GP, LTD

By: _____
*
Scott D. Sandell
Director



*

M. James Barrett

*

Peter J. Barris

*

Forest Baskett

*

Patrick J. Kerins

*

Anthony A. Florence, Jr.

*

David M. Mott

*

Scott D. Sandell

*

Peter W. Sonsini

*

Ravi Viswanathan

*/s/ Louis S. Citron

Louis S. Citron

As attorney-in-fact

This Amendment No. 4 to Schedule 13D was executed by Louis S. Citron on behalf of the individuals listed above pursuant to a Power of Attorney a copy of which is attached as Exhibit 2.

AGREEMENT

Pursuant to Rule 13d-1(k)(1) under the Securities Exchange Act of 1934, the undersigned hereby agree that only one statement containing the information required by Schedule 13D need be filed with respect to the ownership by each of the undersigned of shares of stock of Synlogic, Inc. (f/k/a Mirna Therapeutics, Inc.).

EXECUTED this 13th day of October, 2023.

NEW ENTERPRISE ASSOCIATES 14, L.P.

By: NEA PARTNERS 14, L.P.
General Partner

By: NEA 14 GP, LTD
General Partner

By: _____
*
Scott D. Sandell
Director

NEA PARTNERS 14, L.P.

By: NEA 14 GP, LTD
General Partner

By: _____
*
Scott D. Sandell
Director

NEA 14 GP, LTD

By: _____
*
Scott D. Sandell
Director

*

M. James Barrett

*

Peter J. Barris

*

Forest Baskett

*

Patrick J. Kerins

*

Anthony A. Florence, Jr.

*

David M. Mott

*

Scott D. Sandell

*

Peter W. Sonsini

*

Ravi Viswanathan

*/s/ Louis S. Citron
Louis S. Citron
As attorney-in-fact

This Agreement relating to Schedule 13D was executed by Louis S. Citron on behalf of the individuals listed above pursuant to a Power of Attorney a copy of which is attached hereto as Exhibit 2.

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned hereby constitutes and appoints Louis S. Citron, Timothy Schaller, Sasha Keough and Stephanie Brecher, and each of them, with full power to act without the others, his or her true and lawful attorney-in-fact, with full power of substitution, to sign any and all instruments, certificates and documents that may be necessary, desirable or appropriate to be executed on behalf of himself as an individual or in his or her capacity as a direct or indirect general partner, director, officer or manager of any partnership, corporation or limited liability company, pursuant to section 13 or 16 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and any and all regulations promulgated thereunder, and to file the same, with all exhibits thereto, and any other documents in connection therewith, with the Securities and Exchange Commission, and with any other entity when and if such is mandated by the Exchange Act or by the Financial Industry Regulatory Authority, granting unto said attorney-in-fact full power and authority to do and perform each and every act and thing necessary, desirable or appropriate, fully to all intents and purposes as he or she might or could do in person, thereby ratifying and confirming all that said attorney-in-fact, or his or her substitutes, may lawfully do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, this Power of Attorney has been signed as of the 13th day of March, 2017.

/s/ M. James Barrett
M. James Barrett

/s/ Peter J. Barris
Peter J. Barris

/s/ Forest Baskett
Forest Baskett

/s/ Ali Behbahani
Ali Behbahani

/s/ Colin Bryant
Colin Bryant

/s/ Carmen Chang
Carmen Chang

/s/ Anthony A. Florence, Jr.
Anthony A. Florence, Jr.

/s/ Carol G. Gallagher
Carol G. Gallagher

/s/ Dayna Grayson
Dayna Grayson

/s/ Patrick J. Kerins
Patrick J. Kerins

/s/ P. Justin Klein
P. Justin Klein

/s/ Vanessa Larco
Vanessa Larco

/s/ Joshua Makower
Joshua Makower

/s/ Mohamad H. Makhzoumi
Mohamad H. Makhzoumi

/s/ Edward T. Mathers
Edward T. Mathers

/s/ David M. Mott
David M. Mott

/s/ Sara M. Nayeem
Sara M. Nayeem

/s/ Jason R. Nunn
Jason R. Nunn

/s/ Gregory Papadopoulos
Gregory Papadopoulos

/s/ Chetan Puttagunta
Chetan Puttagunta

/s/ Jon Sakoda
Jon Sakoda

/s/ Scott D. Sandell
Scott D. Sandell

/s/ A. Brooke Seawell
A. Brooke Seawell

/s/ Peter W. Sonsini
Peter W. Sonsini

/s/ Melissa Taunton
Melissa Taunton

/s/ Frank M. Torti
Frank M. Torti

/s/ Ravi Viswanathan
Ravi Viswanathan

/s/ Paul E. Walker
Paul E. Walker

/s/ Rick Yang
Rick Yang
