
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 13D

Under the Securities Exchange Act of 1934

(Amendment No. 2)*

SIONNA THERAPEUTICS, INC.

(Name of Issuer)

Common Stock, \$0.001 par value per share

(Title of Class of Securities)

(CUSIP Number)

Peter Kolchinsky
RA Capital Management, L.P., 200 Berkeley Street, 18th Floor
Boston, MA, 02116
617.778.2500

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

09/17/2026

(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. ☐

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).

SCHEDULE 13D

CUSIP No.

Name of reporting person

1 RA Capital Management, L.P.

2 Check the appropriate box if a member of a Group (See Instructions)

	☐ (a)
	☐ (b)
3	SEC use only
	Source of funds (See Instructions)
4	AF
	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e)
5	☐
	Citizenship or place of organization
6	DELAWARE
	Sole Voting Power
7	0.00
Number of	Shared Voting Power
Shares	
Beneficially	8 6,476,193.00
Owned by	Sole Dispositive Power
Each	9 0.00
Reporting	Shared Dispositive Power
Person	
With:	10 6,476,193.00
	Aggregate amount beneficially owned by each reporting person
11	6,476,193.00
	Check if the aggregate amount in Row (11) excludes certain shares (See Instructions)
12	☐
	Percent of class represented by amount in Row (11)
13	14.3 %
	Type of Reporting Person (See Instructions)
14	IA, PN

SCHEDULE 13D

CUSIP No.

	Name of reporting person
1	Peter Kolchinsky
	Check the appropriate box if a member of a Group (See Instructions)
2	☐ (a)
	☐ (b)
3	SEC use only
	Source of funds (See Instructions)
4	AF
	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e)
5	☐
	Citizenship or place of organization
6	UNITED STATES
Number of	7 Sole Voting Power

Shares	
Beneficially	0.00
Owned by	Shared Voting Power
Each	8
Reporting	6,476,193.00
Person	Sole Dispositive Power
With:	9
	0.00
	Shared Dispositive Power
	10
	6,476,193.00
	Aggregate amount beneficially owned by each reporting person
11	6,476,193.00
	Check if the aggregate amount in Row (11) excludes certain shares (See Instructions)
12	☐
	Percent of class represented by amount in Row (11)
13	14.3 %
	Type of Reporting Person (See Instructions)
14	HC, IN

SCHEDULE 13D

CUSIP No.

	Name of reporting person
1	Rajeev Shah
	Check the appropriate box if a member of a Group (See Instructions)
2	☐ (a)
	☐ (b)
3	SEC use only
	Source of funds (See Instructions)
4	AF
	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e)
5	☐
	Citizenship or place of organization
6	UNITED STATES
	Sole Voting Power
7	0.00
	Shared Voting Power
Number of	8
Shares	6,476,193.00
Beneficially	Sole Dispositive Power
Owned by	9
Each	0.00
Reporting	Shared Dispositive Power
Person	10
With:	6,476,193.00
11	Aggregate amount beneficially owned by each reporting person

	6,476,193.00
12	Check if the aggregate amount in Row (11) excludes certain shares (See Instructions)
	☐
13	Percent of class represented by amount in Row (11)
	14.3 %
14	Type of Reporting Person (See Instructions)
	HC, IN

SCHEDULE 13D

CUSIP No.

1	Name of reporting person
	RA Capital Healthcare Fund, L.P.
	Check the appropriate box if a member of a Group (See Instructions)
2	☐ (a)
	☐ (b)
3	SEC use only
4	Source of funds (See Instructions)
	WC
5	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e)
	☐
6	Citizenship or place of organization
	DELAWARE
	Sole Voting Power
7	0.00
Number of	Shared Voting Power
Shares	
Beneficially	8
Owned by	3,448,812.00
Each	Sole Dispositive Power
Reporting	9
Person	0.00
With:	Shared Dispositive Power
	10
	3,448,812.00
	Aggregate amount beneficially owned by each reporting person
11	3,448,812.00
12	Check if the aggregate amount in Row (11) excludes certain shares (See Instructions)
	☐
13	Percent of class represented by amount in Row (11)
	7.6 %
14	Type of Reporting Person (See Instructions)
	PN

SCHEDULE 13D

CUSIP No.

1

Name of reporting person

RA Capital Nexus Fund III, L.P.

Check the appropriate box if a member of a Group (See Instructions)

2

☐ (a)

☐ (b)

3

SEC use only

4

Source of funds (See Instructions)

5

WC

Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e)

6

☐

Citizenship or place of organization

7

DELAWARE

Sole Voting Power

8

0.00

Shared Voting Power

9

2,198,082.00

Sole Dispositive Power

10

0.00

Shared Dispositive Power

11

2,198,082.00

Aggregate amount beneficially owned by each reporting person

12

Check if the aggregate amount in Row (11) excludes certain shares (See Instructions)

13

☐

Percent of class represented by amount in Row (11)

14

4.9 %

Type of Reporting Person (See Instructions)

PN

SCHEDULE 13D

Item 1.

Security and Issuer

Title of Class of Securities:

(a)

Common Stock, \$0.001 par value per share

Name of Issuer:

(b)

SIONNA THERAPEUTICS, INC.

Address of Issuer's Principal Executive Offices:

(c)

21 Hickory Drive, Suite 500, Waltham, MASSACHUSETTS , 02451.

Item 1 This Amendment No. 2 (this "Amendment No. 2" or this "Schedule 13D/A") amends and supplements the statement on Schedule 13D originally filed with the Securities and Exchange Commission (the "SEC") on February 18, 2025 and amended on November 7, 2025 (the "Statement") by the Reporting Persons. Unless otherwise defined herein, capitalized terms used in this Amendment No. 2 shall have the meanings ascribed to them in the Statement. Unless amended or supplemented below, the information in the Statement remains unchanged.

Item 2. Identity and Background

This Schedule 13D/A is being filed on behalf of RA Capital Management, L.P. ("RA Capital"), Peter Kolchinsky, Rajeev Shah, RA Capital Healthcare Fund, L.P. (the "Fund") and RA Capital Nexus Fund III, L.P. (the "Nexus Fund III"). RA Capital, Dr. Kolchinsky, Mr. Shah, the Fund and the Nexus Fund III are collectively referred to herein as the "Reporting Persons." The agreement among the Reporting Persons to file this Schedule 13D/A jointly in accordance with Rule 13d-1(k) of the Act is filed as Exhibit 99.1. The Reporting Persons' ownership of the Issuer's securities includes (i) 3,448,812 shares of common stock held directly by the Fund; (ii) 650,307 shares of common stock held directly by RA Capital Nexus Fund, L.P. (the "Nexus Fund"); (iii) 2,198,082 shares of common stock held directly by the Nexus Fund III; (iv) 159,033 shares of common stock directly held by a separately managed account (the "Account"); and (v) a total of 19,959 vested stock options (right to buy) held by Dr. Joshua Resnick for the benefit of RA Capital. RA Capital Healthcare Fund GP, LLC is the general partner of the Fund, RA Capital Nexus Fund GP, LLC is the general partner of the Nexus Fund and RA Capital Nexus Fund III GP, LLC is the general partner of the Nexus Fund III. The general partner of RA Capital is RA Capital Management GP, LLC, of which Dr. Kolchinsky and Mr. Shah are the controlling persons. RA Capital serves as investment adviser for each of the Fund, the Nexus Fund, the Nexus Fund III and the Account and may be deemed a beneficial owner, for purposes of Section 13(d) of the Act, of any securities of the Issuer held by the Fund, the Nexus Fund, the Nexus Fund III or the Account. Each of the Fund, the Nexus Fund and the Nexus Fund III has delegated to RA Capital the sole power to vote and the sole power to dispose of all securities held in its portfolio, including the shares of the Issuer's common Stock reported herein. Because each of the Fund, the Nexus Fund and the Nexus Fund III has divested itself of voting and investment power over the reported securities it holds and may not revoke that delegation on less than 61 days' notice, each of the Fund, the Nexus Fund and the Nexus Fund III disclaims beneficial ownership of the securities it holds for purposes of Section 13(d) of the Act and therefore disclaims any obligation to report ownership of the reported securities under Section 13(d) of the Act. As managers of RA Capital, Dr. Kolchinsky and Mr. Shah may be deemed beneficial owners, for purposes of Section 13(d) of the Act, of any securities of the Issuer beneficially owned by RA Capital. RA Capital, Dr. Kolchinsky, and Mr. Shah disclaim beneficial ownership of the securities reported in this Schedule 13D/A other than for the purpose of determining their obligations under Section 13(d) of the Act, and the filing of this Schedule 13D/A shall not be deemed an admission that either RA Capital, Dr. Kolchinsky, or Mr. Shah is the beneficial owner of such securities for any other purpose.

- (a) The address of the principal business office of each of the Reporting Persons is 200 Berkeley Street, 18th Floor, Boston, MA 02116.
- (b) Each of the Fund and the Nexus Fund III is a private investment vehicle. RA Capital provides investment management services to the Fund, the Nexus Fund, the Nexus Fund III and the Account. The principal occupation of each of Dr. Kolchinsky and Mr. Shah is investment management.
- (c) During the last five years, none of the Reporting Persons has been convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors).
- (d) During the last five years, none of the Reporting Persons has been a party to a civil proceeding of a judicial or administrative body of competent jurisdiction and as a result of such proceeding was or is subject to a judgment, decree of 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.
- (e) See Item 6 of the cover pages.

Item 5. Interest in Securities of the Issuer

- (a) Rows 11 and 13 of each Reporting Person's cover page to this Schedule 13D/A set forth the aggregate number of shares of common stock and percentage of the shares of common stock beneficially owned by such Reporting Person and are incorporated by reference. The percentage set forth in each row 13 is based upon 45,212,399 shares of common stock outstanding as of July 31, 2026, as reported in the Issuer's Quarterly Report on Form 10-Q filed with the SEC on August 6, 2026, and giving effect to stock options, to the extent exercisable within 60 days hereof, as referenced herein.
- (b) Rows 7 through 10 of each Reporting Person's cover page to this Schedule 13D/A set forth the number of shares of common stock as to which such Reporting Person has the sole or shared power to vote or direct the vote and sole or shared power to dispose or to direct the disposition and are incorporated by reference.

Except as set forth below, none of the Reporting Persons has effected any transactions with respect to the securities of the Issuer during the past sixty days.

Transaction Person	Date	Shares	Price (\$)	(\$)	(\$)	Block Sale	Fund	09/17/2026	3,415,011	6.32	n/a	n/a	Open Market
Sale Fund	09/17/2026	33,800	7.46	7.30	7.68								

The Reporting Persons undertake to provide to the Issuer, any security holder of the Issuer, or the staff of the SEC, upon request, full information regarding the number of shares sold at each separate price within the range set forth above.
- (d) No person (other than the Reporting Persons) is known to have the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, the shares of common stock subject to this 13D/A.
- (e) The Nexus Fund III ceased to be the beneficial owner of greater than 5.0% of the outstanding common stock on November 17, 2025.

Item 7. Material to be Filed as Exhibits.
Exhibit 99.1 Joint Filing Agreement (incorporated by reference to Exhibit 99.1 to the Reporting Persons' Schedule 13D filed with the SEC on February 18, 2025).

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

RA Capital Management, L.P.

Signature: /s/ Peter Kolchinsky
Name/Title: By Peter Kolchinsky, Authorized Signatory
Date: 09/21/2026

Peter Kolchinsky

Signature: /s/ Peter Kolchinsky
Name/Title: Peter Kolchinsky
Date: 09/21/2026

Rajeev Shah

Signature: /s/ Rajeev Shah
Name/Title: Rajeev Shah
Date: 09/21/2026

RA Capital Healthcare Fund, L.P.

Signature: /s/ Peter Kolchinsky
Name/Title: By RA Capital Healthcare Fund GP, LLC, its
General Partner, By Peter Kolchinsky, Manager
Date: 09/21/2026

RA Capital Nexus Fund III, L.P.

Signature: /s/ Peter Kolchinsky
Name/Title: By RA Capital Nexus Fund III GP, LLC, its
General Partner, By Peter Kolchinsky, Manager
Date: 09/21/2026