

DICERNA PHARMACEUTICALS INC

Filed by
RA CAPITAL MANAGEMENT, LLC

FORM SC 13D/A (Amended Statement of Beneficial Ownership)

Filed 04/13/17

Address	87 CAMBRIDGEPARK DRIVE CAMBRIDGE, MA 02140
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CIK	0001399529
Symbol	DRNA
Fiscal Year	12/31

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

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SCHEDULE 13D

Under the Securities Exchange Act of 1934

(Amendment No. 1)*

Dicerna Pharmaceuticals, Inc.
(Name of Issuer)

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

253031108
(CUSIP Number)

RA Capital Management, LLC
20 Park Plaza, Suite 1200
Boston, MA 02116
Telephone: 617.778.2512
Attn: Peter Kolchinsky
(Name, Address and Telephone Number of Person Authorized to
Receive Notices and Communications)

April 11, 2017
(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 Rule 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.

RA Capital Management, LLC

2 Check the Appropriate Box if a Member of a Group (See Instructions)

(a)

(b)

3 SEC Use Only

4 Source of Funds (See Instructions):

AF

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

6 Citizenship or Place of Organization. **Massachusetts**

Number of Shares Beneficially Owned by Each Reporting Person With	7	Sole Voting Power	0 shares
	8	Shared Voting Power	4,588,536 shares
	9	Sole Dispositive Power	0 shares
	10	Shared Dispositive Power	4,588,536 shares

11 Aggregate Amount Beneficially Owned by Each Reporting Person

4,588,536 shares

12 Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

13 Percent of Class Represented by Amount in Row (11)

20.81%¹

14 Type of Reporting Person (See Instructions)

IA, OO (Limited Liability Company)

¹Represents 2,428,571 shares of the common stock ("Common Stock") of Dicerna Pharmaceuticals, Inc. (the "Issuer") and 2,159,965 shares of the Common Stock underlying the Preferred Stock (as defined below) which constitute approximately 20.81% of the class outstanding. The percentage calculation assumes that there are currently 20,794,193 outstanding shares of the Common Stock of the Issuer, based on the Issuer's Form 10-K as filed with the Securities and Exchange Commission ("SEC") on March 30, 2017.

1 Names of Reporting Persons.

Peter Kolchinsky

2 Check the Appropriate Box if a Member of a Group (See Instructions)

(a)

(b)

3 SEC Use Only

4 Source of Funds (See Instructions):

AF

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

6 Citizenship or Place of Organization. **United States**

Number of Shares Beneficially Owned by Each Reporting Person With	7	Sole Voting Power	0 shares
	8	Shared Voting Power	4,588,536 shares
	9	Sole Dispositive Power	0 shares
	10	Shared Dispositive Power	4,588,536 shares

11 Aggregate Amount Beneficially Owned by Each Reporting Person

4,588,536 shares

12 Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

13 Percent of Class Represented by Amount in Row (11)

20.81%²

14 Type of Reporting Person (See Instructions)

HC, IN

²Represents 2,428,571 shares of the common stock ("Common Stock") of Dicerna Pharmaceuticals, Inc. (the "Issuer") and 2,159,965 shares of the Common Stock underlying the Preferred Stock (as defined below) which constitute approximately 20.81% of the class outstanding. The percentage calculation assumes that there are currently 20,794,193 outstanding shares of the Common Stock of the Issuer, based on the Issuer's Form 10-K as filed with the Securities and Exchange Commission ("SEC") on March 30, 2017.

1 Names of Reporting Persons.

RA Capital Healthcare Fund, L.P.

2 Check the Appropriate Box if a Member of a Group (See Instructions)

(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**

Number of Shares Beneficially Owned by Each Reporting Person With	7	Sole Voting Power	0 shares
	8	Shared Voting Power	4,018,603 shares
	9	Sole Dispositive Power	0 shares
	10	Shared Dispositive Power	4,018,603 shares

11 Aggregate Amount Beneficially Owned by Each Reporting Person

4,018,603 shares

12 Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

13 Percent of Class Represented by Amount in Row (11)

18.52%³

14 Type of Reporting Person (See Instructions)

PN (Limited Partnership)

³Represents 2,256,071 shares of the common stock ("Common Stock") of Dicerna Pharmaceuticals, Inc. (the "Issuer") and 1,762,532 shares of the Common Stock underlying the Preferred Stock (as defined below) attributable to the Fund which constitute approximately 18.52% of the class outstanding. The percentage calculation assumes that there are currently 20,794,193 outstanding shares of the Common Stock of the Issuer, based on the Issuer's Form 10-K as filed with the Securities and Exchange Commission ("SEC") on March 30, 2017.

SCHEDULE 13D

Item 1. Security and Issuer

This Schedule 13D relates to common stock, par value \$0.0001 per share (the “Common Stock”), of Dicerna Pharmaceuticals, Inc., a Delaware corporation (the “Issuer”). The address of the principal executive offices of the Issuer is: 87 Cambridgepark Drive Cambridge, MA 02140.

Item 2. Identity and Background

(a) This Schedule 13D is being filed on behalf of (i) RA Capital Management, LLC (the “RA Capital”), (ii) Peter Kolchinsky and (iii) RA Capital Healthcare Fund, L.P. (“Fund” and together with each of the foregoing, the “Reporting Persons”).

RA Capital is the general partner of the Fund and serves as investment adviser for a separately managed account (the “Account”). Mr. Kolchinsky is the manager of RA Capital. As the investment adviser to the Fund and the Account, RA Capital may be deemed a beneficial owner, for purposes of Section 13(d) of the Securities Exchange Act of 1934 (the “Act”), of any securities of the Issuer owned by the Fund or the Account. As the manager of RA Capital, Mr. Kolchinsky may be deemed a beneficial owner, for purposes of Section 13(d) of the Act, of any securities of the Issuer beneficially owned by RA Capital. RA Capital and Mr. Kolchinsky disclaim beneficial ownership of the securities reported in this Schedule 13D Statement (the “Statement”) other than for the purpose of determining their obligations under Section 13(d) of the Act, and neither the filing of the Statement nor the filing of this Amendment shall be deemed an admission that either RA Capital or Mr. Kolchinsky is or was the beneficial owner of such securities for any other purpose.

(b) The business address of each of the Reporting Persons is: 20 Park Plaza, Suite 1200, Boston, MA 02116.

(c) RA Capital is a registered investment adviser and provides investment management services to the Fund and the Account. The principal occupation of Mr. Kolchinsky is investment management.

(d) None of the Reporting Persons has, during the last five years, been convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors).

(e) None of the Reporting Persons has, during the last five years, 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 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.

(f) See Item 6 of the cover pages.

Item 3. Source and Amount of Funds or Other Consideration

Reporting Persons acquired 1,428,571 of the shares of the Common Stock reported herein upon the automatic conversion of shares of Series C Preferred Stock of the Issuer in connection with the initial public offering of the Common Stock of the Issuer (the “IPO”). The Reporting Persons acquired such preferred shares from the Issuer in a private offering. The Reporting Persons acquired 1,000,000 of the shares of the Common Stock reported herein in the IPO. The Reporting Persons acquired a beneficial interest in 2,159,965 shares of the Common Stock underlying the Preferred Stock (as defined below) in a private placement.

All of the shares reported herein were purchased using working capital of the Fund and the Account.

Item 4. Purpose of Transaction

The Reporting Persons acquired the securities described in this Schedule 13D for investment purposes and they intend to review their investments in the Issuer on a continuing basis. Any actions the Reporting Persons might undertake will be dependent upon the Reporting Persons' review of numerous factors, including, but not limited to: an ongoing evaluation of the Issuer's business, financial condition, operations and prospects; price levels of the Issuer's securities; general market, industry and economic conditions; the relative attractiveness of alternative business and investment opportunities; and other future developments.

The Reporting Persons may, at any time and from time to time, acquire additional securities of the Issuer, or retain or sell all or a portion of the securities then held, in the open market or in privately negotiated transactions. In addition, the Reporting Persons, including Mr. Kolchinsky in his positions as a director of the Issuer, may engage in discussions with management, the board of directors, and shareholders of the Issuer and other relevant parties or encourage such persons to consider or explore extraordinary corporate transactions, such as: a merger; sales or acquisitions of assets or businesses; changes to the capitalization or dividend policy of the Issuer; or other material changes to the Issuer's business or corporate structure.

Other than as described above, none of the Reporting Persons currently has any plans or proposals that relate to, or would result in, any of the matters listed in Items 4(a)–(j) of Schedule 13D, although, depending on the factors discussed herein, the Reporting Persons may change their purpose or formulate different plans or proposals with respect thereto at any time.

Item 5. Interest in Securities of the Issuer

(a) and (b) See Items 7-11 of the cover pages and Item 2 above.

(c) The following describes the Reporting Persons' transactions that were effected during the sixty day period prior to the filing of this Schedule 13D:

On April 11, 2017, the Reporting Persons acquired 76,500 shares of Redeemable Convertible Preferred Stock of the Company, par value \$0.0001 per share (the "Preferred Stock"), at a price of \$100 per share. Of the 76,500 shares of Preferred Stock, 62,424 shares are held by the Fund and 14,076 shares are held by the Account. Each share of Preferred Stock is convertible into a number of shares of Common Stock, equal to the accrued value of the Preferred Stock, *divided by* the conversion price, with cash payment in lieu of fractional shares. The accrued value per share of Preferred Stock is initially \$100 per share, and will be increased daily by a paid-in-kind dividend at a rate of 12% per annum (which rate may be reduced upon the occurrence of specified corporate events), subject to customary anti-dilution adjustments. The conversion price is initially \$3.19, subject to customary anti-dilution adjustments.

The Preferred Stock is convertible at any time at the option of the Holder. In addition, following the occurrence of specified corporate events or after April 11, 2019, the Company may force conversions of the Preferred Stock at any time at which the price per share of the Common Stock exceeds two-times the conversion price for 45 of the preceding 60 scheduled trading days. However, pursuant to a 19.99% blocker (the "19.99% Blocker"), no conversion of the Preferred Stock may be effected to the extent that following such conversion, the holder would beneficially own in excess of 19.99% of the capital stock representing 19.99% of the voting power of the Company. The 19.99% Blocker will be effective until (x) the Company obtains the approval of its stockholders as required by the applicable rules of the NASDAQ Global Select Market or (y) the Company is not subject to rules of the NASDAQ Global Select Market. In addition, each holder of the Preferred Stock may elect to be subject to a 9.99% (or such other percentage up to 19.99% as such holder may elect or amend upon 61 days' prior notice) blocker (the "9.99% Blocker"), which election shall only be revocable upon 61 days' prior notice. If the 9.99% Blocker is effective, no conversion of the Preferred Stock of the Reporting Persons could be effected to the extent to which, after such conversion, the Reporting Persons would beneficially own more than 9.99% of the shares of the Common Stock. Holders of the Preferred Stock are entitled to vote a number of votes equal to the number of shares of the Common Stock into which such holder's Preferred Stock is convertible, taking into account the 19.99% Blocker and, if applicable, the 9.99% Blocker.

As of the date hereof, each share of Preferred Stock has an accrued value of \$100 and is convertible into approximately 31 shares of the Common Stock (with cash in lieu of fractional shares), at a conversion price of \$3.19. Therefore, as of the date hereof, the Preferred Stock owned by the Reporting Persons would be convertible into 2,398,118 shares of the Common Stock, of which 1,956,865 shares would be held by the Fund and 441,253 shares would be held by the Account.

The foregoing description of the Preferred Stock does not purport to be complete and is qualified in its entirety by the full text of the Certificate of Designation of Redeemable Convertible Preferred Stock of Dicerna Pharmaceuticals, Inc., a copy of which is filed as Exhibit 3.1 to the Company's Form 8-K filed with the SEC on March 30, 2017.

(d) Not applicable.

(e) Not applicable.

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

Not applicable.

Item 7. Material to Be Filed as Exhibits

Exhibit 1 Joint Filing Agreement by and among the Reporting Persons.

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.

Date: April 13, 2017

RA CAPITAL MANAGEMENT, LLC

By: /s/ Rajeev Shah

Rajeev Shah
Authorized Signatory

PETER KOLCHINSKY

/s/ Peter Kolchinsky

RA CAPITAL HEALTHCARE FUND, L.P.

By: RA Capital Management, LLC
Its: General Partner

By: /s/ Rajeev Shah

Rajeev Shah
Authorized Signatory

Exhibit 1

JOINT FILING AGREEMENT

This Joint Filing Agreement, dated as of April 13, 2017, is by and among RA Capital Management, LLC, Peter Kolchinsky, and RA Capital Healthcare Fund, L.P. (the foregoing are collectively referred to herein as the "Filers").

Each of the Filers may be required to file with the United States Securities and Exchange Commission a statement on Schedule 13G and/or 13D with respect to Common Stock, par value \$0.0001 per share of Dicerna Pharmaceuticals, Inc. beneficially owned by them from time to time.

Pursuant to and in accordance with Rule 13(d)(1)(k) promulgated under the Securities Exchange Act of 1934, as amended, the Filers hereby agree to file a single statement on Schedule 13G and/or 13D (and any amendments thereto) on behalf of each of such parties, and hereby further agree to file this Joint Filing Agreement as an exhibit to such statement, as required by such rule. This Joint Filing Agreement shall retroactively apply to the Dicerna Pharmaceuticals, Inc. Schedule 13D filed by the Filers on February 5, 2014.

This Joint Filing Agreement may be terminated by any of the Filers upon one week's prior written notice or such lesser period of notice as the Filers may mutually agree.

Executed and delivered as of the date first above written.

RA CAPITAL MANAGEMENT, LLC

By: /s/ Rajeev Shah

Rajeev Shah
Authorized Signatory

PETER KOLCHINSKY

/s/ Peter Kolchinsky

RA CAPITAL HEALTHCARE FUND, L.P.

By: RA Capital Management, LLC
Its: General Partner

By: /s/ Rajeev Shah

Rajeev Shah
Authorized Signatory
