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

FORM 8-K

CURRENT REPORT
PURSUANT TO SECTION 13 OR 15(d)
OF THE SECURITIES EXCHANGE ACT OF 1934

Date of Report (Date of earliest event reported): November 15, 2019

DICERNA PHARMACEUTICALS, INC.
(Exact name of registrant as specified in its charter)

Delaware	**001-36281**	**20-5993609**
(State or other jurisdiction of incorporation)	**(Commission File Number)**	**(IRS Employer Identification Number)**

33 Hayden Avenue **Lexington, Massachusetts**	**02421**
(Address of registrant's principal executive office)	**(Zip code)**

(617) 621-8097
(Registrant's telephone number, including area code)

87 Cambridgepark Drive
Cambridge, Massachusetts 02140
(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.0001 per share	DRNA	The Nasdaq Global Select Market

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 or Rule 12b-2 of the Securities Exchange Act of 1934.

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 13(a) of the Exchange Act. ☒

Item 1.01 Entry into a Material Definitive Agreement.

On November 15, 2019, Dicerna Pharmaceuticals, Inc. (the "Company") and Novo Nordisk A/S ("Novo") entered into a Collaboration and License Agreement (the "Novo Collaboration Agreement"). Under the terms of the Novo Collaboration Agreement, the Company and Novo will seek to use the Company's proprietary GalXC™ RNAi platform ("GalXC™") technology to progress novel therapies for the treatment of liver-related cardiometabolic diseases towards clinical development and commercialization.

Under the Novo Collaboration Agreement, the Company and Novo plan to explore more than 30 gene targets associated with liver disease with the goal of delivering multiple clinical candidates for disorders including chronic liver disease, non-alcoholic steatohepatitis ("NASH"), type 2 diabetes, obesity, and rare diseases. The Company will conduct and fund discovery and preclinical development to clinical candidate selection for each liver cell target. Novo will be responsible for all further development and commercialization, with the Company manufacturing clinical candidates selected for Phase 1 related clinical development, subject to reimbursement for its manufacturing costs. The Company also retains the ability to opt in to co-development of a total of two programs during clinical development in Phases 1-3, subject to limitations in the event of a change in control. If the Company exercises the co-development option, it also has an option to co-promote the products in the United States, subject to limitations in the event of a change of control of the Company. Additionally, the Company may lead the development and commercialization of two programs targeting orphan liver diseases, with Novo retaining the ability to opt in to both programs in Phases 1-3. The Company and Novo will share profit and loss for the Company's orphan liver and Novo products should both parties elect to co-develop.

The Novo Collaboration Agreement provides that the Company will work exclusively with Novo during the research collaboration period on the discovery, research, development, and commercialization of hepatocyte targets not otherwise subject to the Company's existing partnerships and that Novo will, during a specified discovery period, work exclusively with the Company in any new research and development of compounds and products directed to collaboration targets using siRNA conjugated to GalNAc. Under the Novo Collaboration Agreement, the Company will provide Novo with exclusive and non-exclusive licenses and manufacturing support to enable Novo to commercialize products derived from or containing compounds developed pursuant to such agreement.

Novo will pay the Company an upfront payment of $175.0 million, subject to delivery of target information and Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended ("HSR Act") clearance. The Company is also eligible to receive an additional $75.0 million ($25.0 million at the end of each of the first three years of the Novo Collaboration Agreement), contingent upon the Company delivering GalXC™ molecules for a defined number of targets, and additional payments totaling up to approximately $357.5 million per target upon achievement of specified development, regulatory, and commercial milestones. In addition, the Novo Collaboration Agreement provides that Novo will pay to the Company up to mid-single digits to mid-teens digit royalties on product sales on a country-by-country and product-by-product basis until the later of 10 years after the date of first commercial sale of each product in such country, expiration of specified patent rights in such country, or the expiration of specified regulatory exclusivity in such country for GalXC products, subject to royalty step-down provisions set forth in the agreement.

The Novo Collaboration Agreement includes various representations, warranties, covenants, indemnities, and other customary provisions. Novo may terminate the Novo Collaboration Agreement at any time without cause following the notice periods described in the agreement. Either party may terminate the Novo Collaboration Agreement in the event of an uncured material breach of the other party. The Novo Collaboration Agreement is subject to clearance under the HSR Act and other customary closing conditions.

Novo Share Issuance Agreement

In connection with the Novo Collaboration Agreement, the Company and Novo entered into the Novo Share Issuance Agreement on November 15, 2019, pursuant to which the Company agreed to issue to Novo 2,279,982 shares (the "Novo Shares") of the Company's common stock, par value $0.0001 per share ("Common Stock"), at a purchase price of $21.93 per share, for an aggregate purchase price of approximately $50.0 million. The issuance of the Novo Shares is subject to clearance under the HSR Act and other customary closing conditions. The Novo Share Issuance Agreement contains customary representations, warranties, and covenants of each party. The Novo Share Issuance Agreement will automatically terminate if the Novo Collaboration Agreement is terminated prior to the closing of the transactions contemplated by the Novo Share Issuance Agreement.

Pursuant to the terms of the Novo Share Issuance Agreement, Novo may not, without the prior approval of the Company or except in the case of a third-party tender offer, dispose of any of the Novo Shares for a nine-month period commencing on the

closing date of the Novo Share issuance. Additionally, under the Novo Share Issuance Agreement, Novo may participate in some public offerings and private placements of the Company, subject to share ownership requirements and other limitations set forth in the Novo Share Issuance Agreement.

The foregoing summaries are qualified in their entirety by reference to the Novo Collaboration Agreement and Novo Share Issuance Agreement (together, the "Agreements"). The Agreements will be filed as exhibits to the Company's Annual Report on Form 10-K for the year ended December 31, 2019.

Item 3.02 Unregistered Sale of Equity Securities.

As described in the section titled "*Novo Share Issuance Agreement*" in Item 1.01 of this Current Report on Form 8-K, which is incorporated in this Item 3.02 by reference, the Company agreed to sell the Novo Shares to Novo on November 15, 2019 pursuant to the Novo Share Issuance Agreement and subject to the satisfaction of the closing conditions contained therein. The Novo Shares were offered and will be issued in a private placement exempt from registration pursuant to Section 4(a)(2) of the Securities Act of 1933, as amended, or Regulation D promulgated thereunder, as a transaction by an issuer not involving a public offering. Novo has represented it will acquire the Novo Shares for investment only and not with the intent to sell in connection with any distribution thereof, and an appropriate legend will be applied to the Novo Shares.

Cautionary Note on Forward-Looking Statements

This Current Report on Form 8-K includes forward-looking statements. Such forward-looking statements are subject to risks and uncertainties that could cause actual results to differ materially from those expressed or implied in such statements. Examples of forward-looking statements include, among others, statements we make regarding: (i) the development, regulatory, or commercial milestone payments, or royalty payments under the Novo Collaboration Agreement, (ii) the therapeutic and commercial potential of GalXC™ inferred from the statements regarding such payments, or (iii) our expectations regarding our collaboration with Novo. The process by which an early-stage platform such as GalXC™ could potentially lead to development candidates, clinical candidates, or approved products is long and subject to highly significant risks, particularly with respect to a preclinical research collaboration. Applicable risks and uncertainties include those relating to our preclinical research and other risks identified under the heading "Risk Factors" included in the Company's most recent Form 10-Q filing and in other future filings with the SEC. The forward-looking statements contained in this Current Report on Form 8-K reflect the Company's current views with respect to future events, and the Company does not undertake and specifically disclaims any obligation to update any forward-looking statements.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: November 15, 2019

DICERNA PHARMACEUTICALS, INC.

By: /s/ Douglas M. Fambrough, III

Douglas M. Fambrough, III, Ph.D.

Chief Executive Officer