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): January 8, 2023

IONIS PHARMACEUTICALS, INC.

(Exact Name of Registrant as Specified in Charter)

Delaware

(State or Other Jurisdiction of Incorporation)

000-19125

(Commission File No.)

33-0336973 (IRS Employer Identification No.)

2855 Gazelle Court

Carlsbad, CA 92010

(Address of Principal Executive Offices and Zip Code)

Registrant's telephone number, including area code: (760) 931-9200

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 | Name of each exchange on which registered |
|--------------------------------|----------------|---|
| Common Stock, \$.001 Par Value | "IONS" | The Nasdaq Stock Market, LLC |

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (Section 230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (Section 240.12b-2 of this chapter).

Emerging growth company \Box

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. \Box

Item 1.01 Entry into a Material Agreement.

On January 8, 2023, Ionis Pharmaceuticals, Inc. (the "*Company*") and its wholly-owned subsidiary, Akcea Therapeutics, Inc. (the "*Subsidiary*") entered into a royalty purchase agreement (the "*Purchase Agreement*") with Royalty Pharma Investments 2019 ICAV, an Irish collective assetmanagement vehicle ("*Royalty Pharma*"), pursuant to which the Company and the Subsidiary sold to Royalty Pharma:

(i) the Company's right, title and interest in and to: (A) in respect of net sales by Biogen Idec International Holding Ltd ("*Biogen Idec*") and Biogen MA ("*Biogen MA*", and together with Biogen Idec, "*Biogen*") between January 1, 2023 and December 31, 2027, 25%, and (B) in respect of net sales by Biogen Idec commencing on January 1, 2028, 45% of the royalties payable to the Company on annual worldwide net sales up to \$1,500,000,000 pursuant to that certain Development, Option and License Agreement by and between the Company and Biogen Idec dated January 3, 2012, as amended (the "*2012 Biogen License*") and that certain Research Collaboration, Option and License Agreement by and between the Company and Biogen MA dated December 19, 2017 (the "*2017 Biogen License*") (the "*Purchased SMA Royalties*"), subject to an overall cap of either \$475,000,000 or \$550,000,000, depending on the timing of FDA approval of Pelacarsen, or IONIS-APO(a)-L_{Rx}, as described in the Purchase Agreement; and

(ii) the Subsidiary's right, title and interest in and to 25% of the royalties payable to the Subsidiary in respect of net sales by Novartis Pharma AG ("*Novartis*") pursuant to that certain Strategic Collaboration, Option and License Agreement by and between the Subsidiary and Novartis dated January 5, 2017, as amended (the "*Novartis License*") (the "*Purchased Pelacarsen Royalties*" and together with the Purchased SMA Royalties, the "*Purchased Royalties*").

In consideration for the sale of the Purchased Royalties, Royalty Pharma paid to the Company an initial purchase price of \$500,000,000 and has agreed to pay the Company certain additional payments totaling up to \$625,000,000, subject to the achievement of specified milestones set out in the Purchase Agreement.

Under the Purchase Agreement, and in connection with its sale of the Purchased Royalties, each of the Company and the Subsidiary has agreed to certain covenants with respect to the exercise of its rights under the 2012 Biogen License, 2017 Biogen License and Novartis License, including with respect to the Company and the Subsidiary's right to amend, assign and terminate such agreements. The Company and Subsidiary will also provide certain additional payments to Royalty Pharma in the event the Company or the Subsidiary commercializes certain products directly competitive with Pelacarsen. The Purchase Agreement contains other customary terms and conditions, including representations and warranties, covenants and indemnification obligations in favor of each party.

The foregoing summary of the Purchase Agreement is not complete and is qualified in its entirety by reference to the complete text of the Purchase Agreement, which the Company intends to file as an exhibit to its Quarterly Report on Form 10-Q for the quarter ending March 31, 2023.

Item 9.01 Financial Statements and Exhibits.

(d)Exhibits.

| Exhibit No. | Description |
|-------------|--|
| 104 | Cover Page Interactive Data File (embedded within the Inline XBRL document). |

SIGNATURES

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

Date: January 9, 2023

Ionis Pharmaceuticals, Inc.

By: /s/ Patrick R. O'Neil

PATRICK R. O'NEIL Executive Vice President, Chief Legal Officer and General Counsel