
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, DC 20549

SCHEDULE 13D/A

**Under the Securities Exchange Act of 1934
(Amendment No. 5)***

Biora Therapeutics, Inc.
(Name of Issuer)

Common Stock, par value \$0.001 per share
(Title of Class of Securities)

74319F107
(CUSIP Number)

Andrew C. Hyman, Esq.
Athyrium Capital Management, LP
505 Fifth Avenue, 18th Floor
New York, New York 10017
(212) 402-6925

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

November 9, 2022
(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	Name of reporting person Athyrium Opportunities III Co-Invest 1 LP	
2	Check the appropriate box if a member of a group* (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3	SEC use only	
4	Source of funds OO	
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 Delaware	
Number of shares beneficially owned by each reporting person with	7	Sole voting power 0
	8	Shared voting power 36,446,714
	9	Sole dispositive power 0
	10	Shared dispositive power 36,446,714
11	Aggregate amount beneficially owned by each reporting person 36,446,714	
12	Check box if the aggregate amount in Row (11) excludes certain shares <input type="checkbox"/>	
13	Percent of class represented by amount in Row (11) 14.6%	
14	Type of reporting person PN	

1	Name of reporting person Athyrium Opportunities III Acquisition LP	
2	Check the appropriate box if a member of a group* (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3	SEC use only	
4	Source of funds OO	
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 Delaware	
Number of shares beneficially owned by each reporting person with	7	Sole voting power 0
	8	Shared voting power 10,277,376
	9	Sole dispositive power 0
	10	Shared dispositive power 10,277,376
11	Aggregate amount beneficially owned by each reporting person 10,277,376	
12	Check box if the aggregate amount in Row (11) excludes certain shares <input type="checkbox"/>	
13	Percent of class represented by amount in Row (11) 4.1%	
14	Type of reporting person PN	

1	Name of reporting person Athyrium Opportunities III Acquisition 2 LP	
2	Check the appropriate box if a member of a group* (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3	SEC use only	
4	Source of funds OO	
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 Delaware	
Number of shares beneficially owned by each reporting person with	7	Sole voting power 0
	8	Shared voting power 19,828,646
	9	Sole dispositive power 0
	10	Shared dispositive power 19,828,646
11	Aggregate amount beneficially owned by each reporting person 19,828,646	
12	Check box if the aggregate amount in Row (11) excludes certain shares <input type="checkbox"/>	
13	Percent of class represented by amount in Row (11) 7.9%	
14	Type of reporting person PN	

1	Name of reporting person Athyrium Opportunities 2020 LP	
2	Check the appropriate box if a member of a group* (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3	SEC use only	
4	Source of funds OO	
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 Delaware	
Number of shares beneficially owned by each reporting person with	7	Sole voting power 0
	8	Shared voting power 4,583,333
	9	Sole dispositive power 0
	10	Shared dispositive power 4,583,333
11	Aggregate amount beneficially owned by each reporting person 4,583,333	
12	Check box if the aggregate amount in Row (11) excludes certain shares <input type="checkbox"/>	
13	Percent of class represented by amount in Row (11) 1.8%	
14	Type of reporting person PN	

1	Name of reporting person Jeffrey A. Ferrell	
2	Check the appropriate box if a member of a group (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3	SEC use only	
4	Source of funds OO	
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	
Number of shares beneficially owned by each reporting person with	7	Sole voting power 0
	8	Shared voting power 71,136,069
	9	Sole dispositive power 0
	10	Shared dispositive power 71,136,069
11	Aggregate amount beneficially owned by each reporting person 71,136,069	
12	Check box if the aggregate amount in Row (11) excludes certain shares <input type="checkbox"/>	
13	Percent of class represented by amount in Row (11) 28.4%	
14	Type of reporting person IN	

1	Name of reporting person Athyrium Opportunities Associates Co-Invest LLC	
2	Check the appropriate box if a member of a group (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3	SEC use only	
4	Source of funds OO	
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 Delaware	
Number of shares beneficially owned by each reporting person with	7	Sole voting power 0
	8	Shared voting power 36,446,714
	9	Sole dispositive power 0
	10	Shared dispositive power 36,446,714
11	Aggregate amount beneficially owned by each reporting person 36,446,714	
12	Check box if the aggregate amount in Row (11) excludes certain shares <input type="checkbox"/>	
13	Percent of class represented by amount in Row (11) 14.6%	
14	Type of reporting person OO	

1	Name of reporting person Athyrium Funds GP Holdings LLC
2	Check the appropriate box if a member of a group (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>
3	SEC use only
4	Source of funds OO
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 Delaware
Number of shares beneficially owned by each reporting person with	7 Sole voting power 0
	8 Shared voting power 71,136,069
	9 Sole dispositive power 0
	10 Shared dispositive power 71,136,069
11	Aggregate amount beneficially owned by each reporting person 71,136,069
12	Check box if the aggregate amount in Row (11) excludes certain shares <input type="checkbox"/>
13	Percent of class represented by amount in Row (11) 28.4%
14	Type of reporting person OO

1	Name of reporting person Athyrium Opportunities Associates III LP	
2	Check the appropriate box if a member of a group (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3	SEC use only	
4	Source of funds OO	
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 Delaware	
Number of shares beneficially owned by each reporting person with	7	Sole voting power 0
	8	Shared voting power 34,689,355
	9	Sole dispositive power 0
	10	Shared dispositive power 34,689,355
11	Aggregate amount beneficially owned by each reporting person 34,689,355	
12	Check box if the aggregate amount in Row (11) excludes certain shares <input type="checkbox"/>	
13	Percent of class represented by amount in Row (11) 13.9%	
14	Type of reporting person PN	

1	Name of reporting person Athyrium Opportunities Associates III GP LLC
2	Check the appropriate box if a member of a group (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>
3	SEC use only
4	Source of funds OO
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 Delaware
Number of shares beneficially owned by each reporting person with	7 Sole voting power 0
	8 Shared voting power 34,689,355
	9 Sole dispositive power 0
	10 Shared dispositive power 34,689,355
11	Aggregate amount beneficially owned by each reporting person 34,689,355
12	Check box if the aggregate amount in Row (11) excludes certain shares <input type="checkbox"/>
13	Percent of class represented by amount in Row (11) 13.9%
14	Type of reporting person OO

Explanatory Note

This Amendment No. 5 amends and supplements the Schedule 13D originally filed by the Reporting Persons (as defined below) with the Securities and Exchange Commission (the “SEC”) on July 6, 2020, (as amended to date, this “Schedule 13D”). Except as described herein, none of the Reporting Persons or, to the knowledge of the Reporting Persons, none of the Covered Persons, has had any transactions in the Common Stock during the past 60 days.

Item 1. Security and Issuer.

This Schedule 13D relates to the common stock, par value \$0.001 per share (“Common Stock”), of Biora Therapeutics, Inc., a Delaware corporation (the “Company”). The address of the principal executive offices of the Company is 4330 La Jolla Village Drive, Suite 300, San Diego, California 92122.

Item 2. Identity and Background.

(a)-(c) & (f) This Schedule 13D is filed jointly by the following persons pursuant to Rule 13d-1(k) promulgated under the Exchange Act:

(1) Athyrium Opportunities III Co-Invest 1 LP, a Delaware limited partnership (“Co-Invest LP”), is an investment partnership engaged in the business of making equity and debt investments;

(2) Athyrium Opportunities III Acquisition LP, a Delaware limited partnership (“Acquisition LP”), is an investment partnership engaged in the business of making equity and debt investments;

(3) Athyrium Opportunities III Acquisition 2 LP, a Delaware limited partnership (“Acquisition 2 LP” and, together with Acquisition LP, the “AOIII Acquisition Funds”), is an investment partnership engaged in the business of making equity and debt investments;

(4) Athyrium Opportunities 2020 LP, a Delaware limited partnership (“2020 LP” and, together with Co-Invest LP and the AOIII Acquisition Funds, the “Funds”), is an investment partnership engaged in the business of making equity and debt investments;

(5) Athyrium Opportunities Associates III GP LLC, a Delaware limited liability company (“Associates III GP”), is engaged in the business of being the general partner of Associates III LP;

(6) Athyrium Opportunities Associates Co-Invest LLC, a Delaware limited liability company (“Associates Co-Invest”), is engaged in the business of being the general partner of Co-Invest LP;

(7) Athyrium Funds GP Holdings LLC, a Delaware limited liability company (“GP Holdings”), is engaged in the business of being the managing member of Associates Co-Invest and Associates III GP (as defined below);

(8) Athyrium Opportunities Associates III LP, a Delaware limited partnership (“Associates III LP”), is engaged in the business of being the general partner of the AOIII Acquisition Funds and 2020 LP; and

(9) Jeffrey A. Ferrell is an individual citizen of the United States whose principal occupation is to serve as the Managing Member of GP Holdings and the President of Associates III GP and Associates Co-Invest.

The persons described in (1) through (9) above are referred to herein as the “Reporting Persons.” A list of the directors, executive officers, managers, members and partners, as applicable, of each Reporting Person (collectively, the “Covered Persons”) is attached hereto as Annex A and is incorporated by reference herein. To the knowledge of the Reporting Persons, each of the Covered Persons that is a natural person is a United States citizen, except for Elin Strong, who is a citizen of Norway.

The principal business address of each of the Reporting Persons and each associated Covered Person is c/o Athyrium Capital Management, LP, 505 Fifth Avenue, Floor 18, New York, New York 10017.

(d) During the last five years, none of the Reporting Persons or, to their knowledge, none of the Covered Persons, has been convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors).

(e) During the last five years, none of the Reporting Persons or, to their knowledge, none of the Covered 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 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.

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

On October 27, 2017, the Company and Co-Invest LP entered into a Series B Preferred Stock Purchase Agreement (the “2017 Series B Stock Purchase Agreement”), which provided for the sale of shares of Series B Preferred Stock at a purchase price of \$3.53 per share for an aggregate purchase price of \$50.0 million.

On August 27, 2019, the Company and Acquisition LP entered into a Series B Preferred Stock Purchase Agreement pursuant to which Acquisition LP purchased shares of Series B Preferred Stock at \$2.75 per share for an aggregate purchase price of \$25.0 million.

On November 12, 2019, the Company and Acquisition LP entered into a Series B Preferred Stock Purchase Agreement (the “2019 Series B Stock Purchase Agreement”) pursuant to which Acquisition LP purchased additional shares of Series B Preferred Stock at \$2.25 per share for an aggregate purchase price of \$25.0 million. The conversion price of the Series B Preferred Stock was lowered from \$2.75 to \$2.25 per share (or \$13.90 per share as a result of the reverse stock split effected on June 10, 2020). Also on November 12, 2019, Acquisition 2 LP acquired all of the securities of the Company held by Acquisition LP.

On December 19, 2019 and February 28, 2020, Acquisition 2 LP purchased additional shares of Series B Preferred Stock pursuant to the 2019 Series B Stock Purchase Agreement for an aggregate purchase price of \$25.0 million and \$10.0 million, respectively, at a purchase price of \$2.25 per share.

On March 31, 2020, Co-Invest LP and the Company entered into the First Amendment to the Credit Agreement (the “Credit Agreement Amendment”) providing for the payment in shares of the Company’s Series B Preferred Stock of the interest on the amount outstanding under the applicable credit agreement.

On April 3, 2020, the Company and Acquisition 2 LP entered into a Series B Preferred Stock Purchase Agreement pursuant to which Acquisition 2 LP purchased additional shares of Series B Preferred Stock at \$2.25 per share for an aggregate purchase price of \$10.0 million.

On May 8, 2020, the Company and 2020 LP entered into a Note Purchase Agreement pursuant to which 2020 LP purchased an unsecured convertible promissory note (the “Convertible Promissory Note”) with an annual interest rate of 8.0% and in an aggregate principal amount of \$15.0 million.

In connection with the consummation of the Company’s initial public offering of its Common Stock, the Series B Preferred Stock and the Convertible Promissory Note converted, automatically and without any additional consideration, into 18,319,853 and 1,250,000 shares, respectively, of Common Stock. Further, on June 23, 2020, in connection with the initial public offering of the Company’s Common Stock, 2020 LP purchased 3,333,333 shares of Common Stock at a price of \$15.00 per share. The funds used to purchase such shares were composed of the investment capital of 2020 LP.

On December 7, 2020, the Company consummated a follow-on public offering of its Common Stock and a concurrent private placement of its 7.25% convertible senior notes due 2025 (the "7.25% Convertible Notes"). Acquisition 2 purchased 4,128,440 shares of Common Stock, and Acquisition LP purchased an aggregate principal amount of \$25,000,000 of the 7.25% Convertible Notes in connection with the offerings. Such shares of Common Stock were purchased for \$3.27 per share of Common Stock for an aggregate purchase price of \$13.5 million, and such 7.25% Convertible Notes were purchased for \$25.0 million in cash, in each case at the same price offered to the public. The funds used to purchase such shares and 7.25% Convertible Notes, as applicable, were composed of the investment capital of the applicable Fund. At the same time, Co-Invest LP consummated an agreement to receive an aggregate principal amount of \$78,500,000 of the 7.25% Convertible Notes and \$95,833.33 in cash in exchange for the cancellation of the \$78.6 million in principal and accrued and unpaid interest outstanding, as well as a prepayment penalty, under the Company's credit agreement for which Co-Invest LP acted as the lender and collateral agent.

On June 1, 2021, Acquisition LP and Co-Invest LP entered into a Consent and Waiver Agreement and, on May 27, 2021, a Stock Issuance Agreement (the "Stock Issuance Agreement"), each with the Company, pursuant to which Acquisition LP and Co-Invest LP agreed to forgo and waive their right to receive interest in cash due on the 7.25% Convertible Notes held by Acquisition LP and Co-Invest LP, in exchange for the issuance of shares of Common Stock equal to \$3,626,812.50, the amount of cash interest so waived, for a price of \$2.86 per share. Pursuant to the Stock Issuance Agreement, Acquisition LP acquired 306,308 shares of Common Stock and Co-Invest LP acquired 961,807 shares of Common Stock.

On June 14, 2021, the Company consummated a private placement of units (the "Private Placement"), with each unit consisting of one share of Common Stock and the right to buy an additional share of Common Stock for the exercise price specified in the warrant conferring such right (the "Common Stock Warrant"). In connection with the Private Placement, Acquisition 2 LP purchased 8,097,166 units for a price of \$2.47 per unit and with an aggregate purchase price of \$20.0 million.

On November 6, 2022, the Company and Acquisition 2 LP agreed to amend the Common Stock Warrant (as amended, the "Amended Warrant") to reduce the exercise price to \$0.3288 per share of Common Stock. The Amended Warrant is exercisable at any time on or after May 9, 2023 and until May 9, 2028, but not thereafter.

On November 6, 2022, Acquisition LP and Co-Invest LP entered into an Interest Waiver and Securities Issuance Agreement and a Securities Purchase Agreement (collectively, the "Interest Waiver Agreements"), in each case with the Company, pursuant to which Acquisition LP and Co-Invest LP agreed to forego and waive their right to receive an aggregate amount of \$3,751,875 in cash interest due on the 7.25% Convertible Notes held by Acquisition LP and Co-Invest LP, in exchange for the issuance of shares of Common Stock and warrants to purchase an additional share of Common Stock (the "Second Common Stock Warrant"). In connection with the Interest Waiver Agreements, Acquisition LP acquired 3,020,833 shares of Common Stock and the right to purchase 3,020,833 shares of Common Stock pursuant to the Second Common Stock Warrant and Co-Invest LP acquired 9,485,417 shares of Common Stock and the right to purchase 9,485,417 shares of Common Stock pursuant to the Second Common Stock Warrant. The Second Common Stock Warrant has an exercise price of \$0.3288 per share and is exercisable at any time on or after May 9, 2023 and until May 9, 2028, but not thereafter.

Item 4. Purpose of Transaction.

The Reporting Persons acquired the securities reported herein for investment purposes and intend to review their investments in the Company on a continuing basis. Depending on various factors, including but not limited to the Company's financial position and strategic direction, price levels of the Common Stock, conditions in the securities markets, various laws and regulations applicable to the Company and companies in its industry and the Reporting Persons' ownership in the Company, and general economic and industry conditions, the Reporting Persons may in the future take actions with respect to their investment in the Company as they deem appropriate, including changing their current intentions, with respect to any or all matters required to be disclosed herein. Without limiting the foregoing, and subject to any applicable limitations described in Item 6 below, the Reporting Persons may, from time to time, acquire or cause affiliates to acquire additional shares of Common Stock or other securities of the Company (including any combination or derivative thereof), dispose, or cause affiliates to dispose, of some or all of their Common Stock or other securities of the Company or continue to hold, or cause affiliates to hold, Common Stock or other securities of the Company.

In addition, the Reporting Persons have had and intend to continue having discussions, from time to time, with management and the board of directors of the Company, and may engage with other stockholders or securityholders of the Company and other relevant parties, or take other actions concerning the Company's business, lines of business, operations, strategy, previously announced restructuring, plans and prospects; any extraordinary corporate transactions (including, but not limited to, a merger, reorganization or liquidation); sales of a material amount of assets or divestitures; a change in the board of directors or management; a material change in the capitalization or dividend policies; other material changes in the Company's business, lines of business, or corporate structure; or similar actions.

Except as set forth herein, or as would occur upon completion of any of the matters discussed herein, the Reporting Persons have no present plans, proposals or intentions which would result in or relate to any of the transactions described in subparagraphs (a) through (j) of Item 4 of Schedule 13D. Although the foregoing reflects activities presently contemplated by the Reporting Persons and each other individuals named in Item 2 with respect to the Company, the foregoing is subject to change at any time.

The information set forth under Items 3 and 6 is incorporated by reference herein.

Item 5. Interest in Securities of the Issuer.

(a)-(b) The information contained on the cover pages of this Schedule 13D is incorporated herein by reference.

The Reporting Persons beneficially own in the aggregate 71,136,069 shares of Common Stock, which represents approximately 28.4% of the outstanding shares of Common Stock. All calculations of percentage ownership in this Schedule 13D are based on (i) 221,603,559 shares of Common Stock outstanding as disclosed in the Company's prospectus filed with the SEC on November 9, 2022, and (ii) *plus* shares issuable upon conversion of the 7.25% Convertible Notes held by the Reporting Persons. The shares beneficially owned by the Reporting Persons do not include any of the shares underlying the Amended Warrant or the Second Common Stock Warrant since such warrants are not exercisable until May 9, 2023 and therefore do not represent a right to acquire the underlying shares of Common Stock within 60 days of this Schedule 13D.

To the knowledge of the Reporting Persons, none of the Covered Persons directly owns any shares of Common Stock; provided, however, that because of each Covered Persons' status as a director, executive officer, manager, member or partner of a Reporting Person, a Covered Person may be deemed to be the beneficial owner of the shares of Common Stock beneficially owned by such Reporting Person. Except to the extent of their pecuniary interest, each of the Covered Persons disclaims beneficial ownership of the shares of the Common Stock reported herein and the filing of this Schedule 13D shall not be construed as an admission that any such Covered Person is the beneficial owner of any securities covered by this statement.

(c) Except as described herein, none of the Reporting Persons or, to their knowledge, none of the Covered Persons, has had any transactions in the Common Stock during the past 60 days.

(d) Except as set forth herein, to the knowledge of the Reporting Persons, no other person has the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, any shares of Common Stock.

(e) Not applicable.

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

Fourth Amended and Restated Investors' Rights Agreement

On August 27, 2019, Co-Invest LP, Acquisition LP and certain of their affiliates (the "Athyrium Parties") entered into a fourth amended and restated investors' rights agreement (the "Investors' Rights Agreement") with the Company and the other stockholders of the Company. The Investors' Rights Agreement provides that the stockholders of the Company have certain registration rights described below. On November 12, 2019, in connection with its acquisition of the securities of the Company previously held by Acquisition LP, Acquisition 2 LP signed a joinder agreement to the Investors' Rights Agreement and became one of the Athyrium Parties discussed below.

The registration rights described below will expire (i) five years after the completion of the Company's initial public offering, (ii) with respect to any Athyrium Party, at the time such Athyrium Party can sell all of its registrable securities under Rule 144 or another similar exemption under the Securities Act of 1933, as amended (the "Securities Act"), without limitation during a three-month period without registration or (iii) upon termination of the Investors' Rights Agreement.

The key registration rights under the Investors' Rights Agreement are as follows:

- *Demand Registration Rights.* At any time beginning 210 days after the effective date of the registration statement for the Company's initial public offering, the holders of 50% or more of the registrable securities then outstanding may make a written request that the Company register all or a portion of their shares, subject to certain specified exceptions and conditions. The Company will then prepare and file a registration statement as requested, unless, in the good faith judgment of the Company's board of directors, such registration would be seriously detrimental to the Company and its stockholders and filing should be deferred.
- *Piggyback Registration Rights.* Subject to certain specified exceptions, if the Company proposes to register any of its securities under the Securities Act either for its own account or for the account of other stockholders, the holders of shares having registration rights are entitled to written notice and certain "piggyback" registration rights allowing them to include their shares in the Company's registration statement. These registration rights are subject to specified conditions and limitations, including the right of the underwriters, in their sole discretion, to limit the number of shares included in any such offering under certain circumstances, but not below 15% of the total amount of securities included in such offering, unless all securities, other than the Company's securities, are entirely excluded from the offering.

- *Form S-3 Registration Rights.* At any time after the Company is qualified to file a registration statement on Form S-3, and subject to limitations and conditions, the holders of 50% or more of the registrable securities then outstanding are entitled to written notice of such registration and may make a written request that the Company prepare and file a registration statement on Form S-3 under the Securities Act covering their shares. The Company will then prepare and file the Form S-3 registration statement as requested, unless, in the good faith judgment of the Company's board of directors, such registration would be seriously detrimental to the Company and its stockholders and filing should be deferred.

On November 10, 2020, the Company and the other stockholders party thereto entered into Amendment No. 1 to the Investors' Rights Agreement in order to provide for the registration of the shares of Common Stock issued or issuable upon conversion of the Convertible Promissory Note.

On December 7, 2020, the Company and the other stockholders party thereto entered into Amendment No. 2 to the Investors' Rights Agreement in order to provide for the registration of the shares of Common Stock issued or issuable upon conversion of the 7.25% Convertible Notes.

On May 31, 2021, the Company and the other stockholders party thereto entered into Amendment No. 3 to the Investors' Rights Agreement in order to provide for the registration of the shares of Common Stock issued pursuant to the Stock Issuance Agreement.

On August 19, 2021, in connection with the proposed sale by the Company of Common Stock and warrants to purchase Common Stock pursuant to the Company's registration statement on Form S-3 filed with the SEC on July 30, 2021 (the "Shelf Registration Statement"), the Company and the stockholders party to the Investors' Rights Agreement entered into that certain Notice and Waiver, pursuant to which such stockholders waived their respective right to request that the Company include the securities registrable pursuant to the Investor Rights Agreement among the securities registered on the Shelf Registration Statement.

7.25% Convertible Notes

On December 7, 2020, the Company issued a new series of 7.25% Convertible Notes. The 7.25% Convertible Notes were issued pursuant to, and are governed by, an indenture (the "Indenture"), dated as of December 7, 2020, by and between the Company and The Bank of New York Mellon Trust Company, N.A., as trustee. The initial conversion rate is 278.0094 shares of Common Stock per \$1,000 principal amount of 7.25% Convertible Notes, which represents an initial conversion price of approximately \$3.60 per share of Common Stock. The conversion rate and conversion price will be subject to customary adjustments upon the occurrence of certain events. In addition, if certain corporate events that constitute a "Make-Whole Fundamental Change" (as defined in the Indenture) occur, then the conversion rate will, in certain circumstances, be increased for a specified period of time.

Common Stock Warrant and Amended Warrant

On June 14, 2021, the Company issued a Common Stock Warrant to Acquisition 2 LP as registered holder. On November 6, 2022, the Company and Acquisition 2 LP agreed to amend the Common Stock Warrant. This Amended Warrant is exercisable for 8,097,166 shares of Common Stock at an exercise price of \$0.3288 per share, at any time on or after May 9, 2023 and prior to May 9, 2028.

Second Common Stock Warrant

On November 9, 2022, the Company issued the Second Common Stock Warrant to Acquisition LP and Co-Invest LP in connection with the Interest Waiver Agreements. The Second Common Stock Warrant is exercisable for 12,506,250 shares of Common Stock, has an exercise price of \$0.3288 per share of Common Stock and is exercisable at any time between May 9, 2023 and prior to its expiration on May 9, 2028.

The foregoing summary of the Investors' Rights Agreement, 7.25% Convertible Notes, Common Stock Warrant, Amended Warrant and Second Common Stock Warrant is qualified in its entirety by reference to the complete text of such agreements, copies of which are filed as exhibits hereto and are incorporated herein by reference.

Pursuant to Rule 13d-1(k) promulgated under the Securities Exchange Act of 1934, as amended, the Reporting Persons have entered into an agreement with respect to the joint filing of this Schedule 13D, which agreement is set forth on the signature page to this Schedule 13D.

Except as described above and herein in this Schedule 13D, there are no other contracts, understandings or relationships (legal or otherwise) among the parties named in Item 2 hereto and between such persons and any person with respect to any of the common stock of the Company owned by the Funds.

Item 7. Material to be Filed as Exhibits.

- Exhibit 99.1 [Fourth Amended and Restated Investors' Rights Agreement, dated August 27, 2019, by and among the Company and certain of its stockholders \(Incorporated by reference to Exhibit 4.5 of the Company's Registration Statement on Form S-1 filed on May 27, 2020\).](#)
- Exhibit 99.2 [Amendment No. 1 to Fourth Amended and Restated Investors' Rights Agreement, dated as of November 10, 2020, by and among the Company and certain of its stockholders \(Incorporated by reference to Exhibit 4.6 of the Company's Registration Statement on Form S-1 filed on December 1, 2020\).](#)
- Exhibit 99.3 [Amendment No. 2 to Fourth Amended and Restated Investors' Rights Agreement, dated as of December 7, 2020, by and among the Company and certain of its stockholders \(Incorporated by reference to Exhibit 99.3 to the Schedule 13D/A filed by the Reporting Persons on December 11, 2020\).](#)
- Exhibit 99.4 [Amendment No. 3 to Fourth Amended and Restated Investors' Rights Agreement, dated as of May 31, 2021, by and among the Company and certain of its stockholders \(Incorporated by reference to Exhibit 99.4 to the Schedule 13D/A filed by the Reporting Persons on June 21, 2021\).](#)

- Exhibit 99.5 [Notice and Waiver, dated as of November 22, 2021, by and among the Company and certain of its stockholders.](#)
- Exhibit 99.6 [Form of Certificate Representing the 7.25% Convertible Notes \(Incorporated by reference to Exhibit 4.2 of the Company's Current Report on Form 8-K filed on December 7, 2020\).](#)
- Exhibit 99.7 [Indenture, dated as of December 7, 2020, between the Company and The Bank of New York Mellon Trust Company, N.A., as trustee \(Incorporated by reference to Exhibit 4.1 of the Company's Current Report on Form 8-K filed on December 7, 2020\).](#)
- Exhibit 99.8 [Form of Warrant \(Incorporated by reference to Exhibit 4.1 of the Company's Current Report on Form 8-K filed on June 14, 2021\).](#)
- Exhibit 99.9 [Form of Securities Purchase Agreement, dated as of November 6, 2022, between the Company and the Purchasers signatory therein \(Incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K filed on November 9, 2022\).](#)
- Exhibit 99.10 [Form of Amended Warrant \(Incorporated by reference to Exhibit 10.4 of the Company's Current Report on Form 8-K filed on November 9, 2022\).](#)
- Exhibit 99.11 [Form of Warrant \(Incorporated by reference to Exhibit 10.2 of the Company's Current Report on Form 8-K filed on November 9, 2022\).](#)

SIGNATURES

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

In accordance with Rule 13d-1(k)(1)(iii) under the Securities Exchange Act of 1934, as amended, the persons named below agree to the joint filing on behalf of each of them of this Schedule 13D with respect to the common stock of the Company.

Dated as of November 18, 2022.

ATHYRIUM OPPORTUNITIES 2020 LP

By: ATHYRIUM OPPORTUNITIES ASSOCIATES III LP,
its General Partner

By: ATHYRIUM OPPORTUNITIES ASSOCIATES
III GP LLC, its General Partner

By: /s/ Andrew Hyman

Name: Andrew Hyman

Title: Senior Vice President, Secretary

ATHYRIUM OPPORTUNITIES III ACQUISITION LP

By: ATHYRIUM OPPORTUNITIES ASSOCIATES III LP,
its General Partner

By: ATHYRIUM OPPORTUNITIES ASSOCIATES
III GP LLC, its General Partner

By: /s/ Andrew Hyman

Name: Andrew Hyman

Title: Senior Vice President, Secretary

ATHYRIUM OPPORTUNITIES III ACQUISITION 2 LP

By: ATHYRIUM OPPORTUNITIES ASSOCIATES III LP,
its General Partner

By: ATHYRIUM OPPORTUNITIES ASSOCIATES
III GP LLC, its General Partner

By: /s/ Andrew Hyman

Name: Andrew Hyman

Title: Senior Vice President, Secretary

ATHYRIUM OPPORTUNITIES III CO-INVEST 1 LP

By: ATHYRIUM OPPORTUNITIES ASSOCIATES
CO-INVEST LLC, its General Partner

By: /s/ Andrew Hyman

Name: Andrew Hyman

Title: Senior Vice President, Secretary

ATHYRIUM OPPORTUNITIES ASSOCIATES
CO-INVEST LLC

By: /s/ Andrew Hyman

Name: Andrew Hyman

Title: Senior Vice President, Secretary

ATHYRIUM OPPORTUNITIES ASSOCIATES III GP LLC

By: /s/ Andrew Hyman

Name: Andrew Hyman

Title: Senior Vice President, Secretary

ATHYRIUM OPPORTUNITIES ASSOCIATES III LP

By: ATHYRIUM OPPORTUNITIES ASSOCIATES III
GP LLC, its General Partner

By: /s/ Andrew Hyman
Name: Andrew Hyman
Title: Senior Vice President, Secretary

ATHYRIUM FUNDS GP HOLDINGS, LLC

By: /s/ Jeffrey A. Ferrell
Name: Jeffrey A. Ferrell
Title: Managing Member

/s/ Jeffrey A. Ferrell
JEFFREY A. FERRELL

ANNEX A

Other than as set forth below, and in the Schedule 13D to which this Annex A is attached, none of the Reporting Persons have appointed any executive officers or directors.

Athyrium Opportunities Co-Invest LLC

The name and principal occupation of each of the members and executive officers of Athyrium Opportunities Co-Invest LLC are listed below:

<u>Name</u>	<u>Principal Occupation</u>
Athyrium Funds GP Holdings LLC	N/A (Managing Member)
Jeffrey A. Ferrell	President
Jeremy D. Lack	President
Andrew C. Hyman	Senior Vice President, Secretary
Paul A. Wakefield	Senior Vice President
Courtney Paul	Vice President, Assistant Secretary
Elin Strong	Vice President
Rashida Adams	Vice President

Athyrium Opportunities Associates III GP LLC

The name and principal occupation of each of the members and executive officers of Athyrium Opportunities Associates III GP LLC are listed below:

<u>Name</u>	<u>Principal Occupation</u>
Athyrium Funds GP Holdings LLC	N/A (Managing Member)
Jeffrey A. Ferrell	President
Jeremy D. Lack	President
Andrew C. Hyman	Senior Vice President, Secretary
Paul A. Wakefield	Senior Vice President
Courtney Paul	Vice President, Assistant Secretary
Elin Strong	Vice President
Rashida Adams	Vice President