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): March 1, 2022

XENON PHARMACEUTICALS INC.

(Exact name of Registrant as Specified in Its Charter)

Canada (State or Other Jurisdiction of Incorporation) 001-36687

(Commission File Number)

98-0661854 (IRS Employer Identification No.)

200-3650 Gilmore Way Burnaby, British Columbia, Canada (Address of Principal Executive Offices)

V5G 4W8 (Zip Code)

Registrant's Telephone Number, Including Area Code: (604) 484-3300

Not Applicable (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 (see General Instruction A.2. below): 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)) П 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: Trading Symbol(s) Title of each class Name of each exchange on which registered The Nasdaq Stock Market LLC (The Nasdaq Global Market) Common Shares, without par value Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§ 230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§ 240.12b-2 of this chapter). Emerging growth company \square 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 March 1, 2022, Xenon Pharmaceuticals Inc. (the "Company") entered into an amendment (the "Amendment") to its at-the-market equity offering sales agreement, dated as of August 6, 2020 (as amended, the "Sales Agreement"), with Jefferies LLC ("Jefferies") and Stifel, Nicolaus & Company, Incorporated ("Stifel"). The Sales Agreement provides for the offer and sale of the Company's common shares from time to time through Jefferies and Stifel as its sales agents, subject to the maximum aggregate dollar amount registered pursuant to the applicable prospectus supplement to the Company's automatic shelf registration statement on Form S-3ASR (File No. 333-260010) (the "Registration Statement"), filed with the Securities and Exchange Commission (the "SEC") on October 4, 2021. Pursuant to the prospectus supplement filed on March 1, 2022, the Company may offer and sell up to \$250,000,000 of its common shares. Sales of common shares through Jefferies and Stifel, if any, will be made by any method permitted by law deemed to be an "at-the-market offering" as defined in Rule 415(a)(4) under the Securities Act of 1933, as amended, including without limitation sales made directly on the Nasdaq Global Market or any other existing trading market for the common shares. The Company will pay Jefferies and Stifel a commission of up to 3.0% of the gross sales proceeds of any common shares sold through Jefferies or Stifel under the Sales Agreement. The Company has also provided Jefferies and Stifel with customary indemnification and contribution rights.

In accordance with the Sales Agreement, Jefferies and Stifel will use commercially reasonable efforts to sell the Company's common shares from time to time, based upon instructions from the Company, including any price, time or size limits or other customary parameters or conditions the Company may impose. The Company is not obligated to make any sales of common shares under the Sales Agreement. The Sales Agreement may be terminated by the Company or Jefferies and Stifel upon the written notice to the other party in accordance with the terms of the Sales Agreement. The offering of the common shares pursuant to the Sales Agreement will terminate upon the termination of the Sales Agreement in accordance with its terms.

The common shares are being offered and sold pursuant to the Registration Statement, including the prospectus, dated October 4, 2021, and the prospectus supplement, dated March 1, 2022.

The foregoing description of the Amendment is not complete and is qualified in its entirety by reference to the full text of the Amendment, a copy of which is filed as Exhibit 1.1 hereto and incorporated herein by reference. The Amendment is also incorporated by reference into the Registration Statement.

A copy of the opinion of Blake, Cassels & Graydon LLP relating to the legality of the common shares issuable under the Sales Agreement is filed as Exhibit 5.1 to this Current Report on Form 8-K and is also incorporated by reference into the Registration Statement.

This Current Report shall not constitute an offer to sell or the solicitation of an offer to buy the securities discussed herein, nor shall there be any sale of such securities in any state or jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state or jurisdiction.

Item 9.01 Financial Statements and Exhibits

(d) Exhibits.

1.1 Amendment No. 1 to the At-the-Market Equity Offering Sales Agreement, dated March 1, 2022, by and among 3 Pharmaceuticals Inc., Jefferies LLC and Stifel, Nicolaus & Company, Incorporated.	<u>Kenon</u>
5.1 <u>Legal Opinion of Blake, Cassels & Graydon LLP.</u>	
23.1 <u>Consent of Blake, Cassels & Graydon LLP (included in Exhibit 5.1).</u>	
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: March 1, 2022

XENON PHARMACEUTICALS INC.

By: /s/ Sherry Aulin

Sherry Aulin Chief Financial Officer

AMENDMENT NO. 1 TO THE AT-THE-MARKET EQUITY OFFERING SALES AGREEMENT

March 1, 2022

JEFFERIES LLC 520 Madison Avenue New York, New York 10022

STIFEL, NICOLAUS & COMPANY, INCORPORATED One South Street, 15th Floor Baltimore, Maryland 21202

Ladies and Gentlemen:

This Amendment No. 1 to the At-The-Market Equity Offering Sales Agreement (this "Amendment") is entered into as of the date first written above by Xenon Pharmaceuticals Inc., a corporation continued under the federal laws of Canada (the "Company"), Jefferies LLC and Stifel, Nicolaus & Company, Incorporated (the "Agents"), which are parties to that certain At-The-Market Equity Offering Sales Agreement, dated August 6, 2020 (the "Original Agreement"). All capitalized terms not defined herein shall have the meanings ascribed to them in the Original Agreement. The parties, intending to be legally bound, hereby amend the Original Agreement as follows:

1. The preamble to the Original Agreement is hereby deleted in its entirety and replaced with the following:

"Xenon Pharmaceuticals Inc., a corporation continued under the federal laws of Canada (the "Company"), proposes, subject to the terms and conditions stated herein, to issue and sell from time to time to or through Jefferies LLC ("Jefferies") and Stifel, Nicolaus & Company, Incorporated ("Stifel Nicolaus"), as sales agents and/or principals (each individually an "Agent" and collectively, the "Agents"), common shares (the "Shares") of the Company, no par value per Share, on the terms set forth in Section 2 of this At-The-Market Equity Offering Sales Agreement (this "Agreement"). The Company agrees that whenever it determines to sell Shares directly to an Agent as principal, it will enter into a separate agreement (each, a "Terms Agreement") in substantially the form of Annex I hereto, relating to such sale in accordance with Section 3 of this Agreement."

2. The first paragraph of Section 1(a) of the Original Agreement shall be amended and restated as follows:

"(a) Compliance with Registration Requirements. The Company has filed with the Securities and Exchange Commission (the "Commission") an "automatic shelf registration statement" as defined under Rule 405 of the Securities Act of 1933, as amended (the "1933 Act"), on Form S-3ASR (File No. 333-260010), that contains a basic prospectus (the "Basic Prospectus"). The Company may file one or more additional registration statements on Form S-3 from time to time that will contain a basic prospectus and related prospectus or prospectus supplement, if applicable, with respect to the Shares. Except where the context otherwise requires, such registration statement(s), the various parts of such registration statement, including all exhibits thereto and any prospectus supplement relating to the Shares that is filed with the Commission and deemed by virtue of Rule 430B to be part of such registration statement, each as amended at the time such part of the registration statement became effective, including any post-effective amendments, thereto, are hereinafter collectively called the "Registration Statement"; the prospectus supplement specifically relating to the Shares prepared and filed with the Commission pursuant to Rule 424(b) under the 1933 Act is hereinafter called the "Prospectus Supplement"; the Basic Prospectus, as amended and supplemented by the Prospectus Supplement, is hereinafter called the "Prospectus"; any reference herein to the Basic Prospectus, the Prospectus Supplement or the Prospectus shall be deemed to refer to and include the documents incorporated by reference therein pursuant to Item 12 of Form S-3 under the 1933 Act; any reference to any amendment or supplement to the Basic Prospectus, the Prospectus Supplement or the Prospectus shall be deemed to refer to and include any post-effective amendment to the Registration Statement, any prospectus supplement relating to the Shares filed with the Commission pursuant to Rule 424(b) under the 1933 Act and any documents filed under the Securities Exchange Act of 1934, as amended (the "1934 Act"), and the rules and regulations of the Commission thereunder (the "1934 Act Regulations"), and incorporated therein, in each case after the date of the Basic Prospectus, the Prospectus Supplement or the Prospectus, as the case may be; any reference to any amendment to the Registration Statement shall be deemed to refer to and include any annual report of the Company filed pursuant to Section 13(a) or 15(d) of the 1934 Act after the effective date of the Registration Statement that is incorporated by reference in the Registration Statement; and any "issuer free writing prospectus" as defined in Rule 433 under the 1933 Act relating to the Shares is hereinafter called an "Issuer Free Writing Prospectus")."

3. Section 1(cc) of the Original Agreement shall be amended and restated as follows:

"(cc) FINRA Matters. All of the information provided to the Agents or to counsel for the Agents related to FINRA matters by the Company and its officers and directors is true, complete and correct in all material respects. The Company meets the definition of the term "experienced issuer" specified in FINRA Rule 5110(j)(6)."

4. New Section 1(ww) shall be added as follows:

"(ww) Well-known Seasoned Issuer. (A) At the original effectiveness of the Registration Statement, (B) at the time of the most recent amendment thereto for the purposes of complying with Section 10(a)(3) of the 1933 Act (whether such amendment was by post-effective amendment or incorporated report filed pursuant to Section 13 or 15(d) of the 1934 Act or in the form of a prospectus), and (C) at the time the Company or any person acting on its behalf (within the meaning, for this clause only, of Rule 163(c) under the 1933 Act) made any offer relating to the Shares in reliance on the exemption of Rule 163 under the 1933 Act, the Company was and is a "well-known seasoned issuer" (as defined in Rule 405)."

5. Section 3(a) of the Original Agreement shall be amended and restated as follows:

"(a) During any period when the delivery of a prospectus is required in connection with the offering or sale of Shares (whether physically or through compliance with Rule 153 or 172, or in lieu thereof, a notice referred to in Rule 173(a) under the 1933 Act), (i) to make no further amendment or any supplement to the Registration Statement or the Prospectus (other than an amendment or supplement relating to an offering of the Company's securities which is unrelated to the offering of Shares hereunder) prior to any Settlement Date which shall be disapproved by the Agents promptly after reasonable notice thereof and to advise the Agents, promptly after it receives notice thereof, of the time when any amendment to the Registration Statement has been filed or becomes effective or any amendment or supplement to the Prospectus (other than an amendment or supplement relating to an offering of the Company's securities which is unrelated to the offering of Shares hereunder) has been filed and to furnish the Agents with copies thereof, (ii) to file promptly all other material required to be filed by the Company with the Commission pursuant to Rule 433(d) under the 1933 Act, (iii) to file promptly all reports and any definitive proxy or information statements required to be filed by the Company with the Commission pursuant to Section 13(a), 13(c), 14 or 15(d) of the 1934 Act, (iv) to advise the Agents, promptly after it receives notice thereof, of the issuance by the Commission of any stop order or of any order preventing or suspending the use of the Prospectus or other prospectus in respect of the Shares, of the suspension of the qualification of the Shares for offering or sale in any jurisdiction, of the initiation or threatening of any proceeding for any such purpose, or of any request by the Commission for the amending or supplementing of the form of the Registration Statement or the Prospectus or for additional information, (v) in the event of the issuance of any such stop order or of any such order preventing or suspending the use of the Prospectus in respect of the Shares or suspending any such qualification, to promptly use its commercially reasonable efforts to obtain the withdrawal of such order and (vi) to notify promptly of the Company losing its status as a "well-known seasoned issuer" (as defined in Rule 405) as of the time the Company files with the Commission an annual report on Form 10-K; and in the event of any issuance of a notice of objection or loss of "well-known seasoned issuer" status, promptly to take such reasonable steps as may be necessary to permit offers and sales of the Shares by the Agents, which may include, without limitation, amending the Registration Statement or filing a new registration statement, at the Company's expense (references herein to the Registration Statement shall include any such amendment or new registration statement). Notwithstanding the foregoing, the Company shall not be obligated to furnish copies of any report or statement filed with the Commission to the extent it is available on the Commission's Electronic Data Gathering, Analysis, and Retrieval System ("EDGAR")."

6. Section 3(e) to the Original Agreement is hereby deleted in its entirety and replaced with the following:

"(e) The Company will pay the required Commission filing fees relating to the Shares within the time required by Rule 456(b) (1) under the 1933 Act without regard to the proviso therein and otherwise in accordance with Rules 456(b) and 457(r) under the 1933 Act."

7. Section 17 to the Original Agreement is hereby deleted in its entirety and replaced with the following:

"Counterparts. This Agreement, any Terms Agreement and any documents provided to the other party pursuant to this Agreement or any Terms Agreement may be executed by any one or more of the parties hereto and thereto in any number of counterparts, each of which shall be deemed to be an original, but all such respective counterparts shall together constitute one and the same instrument. This Agreement, any Terms Agreement and any documents provided to the other party pursuant to this Agreement or any Terms Agreement may be delivered by facsimile transmission or by electronic delivery of a portable document format (PDF) file (including any electronic signature covered by the U.S. federal ESIGN Act of 2000, Uniform Electronic Transactions Act, the Electronic Signatures and Records Act or other applicable law, e.g., www.docusign.com)."

- 8. The Company represents and warrants to, and agrees with the Agents that this Amendment has been duly authorized, executed and delivered by, and is a valid and binding agreement of, the Company, enforceable in accordance with its terms, except as rights to indemnification hereunder may be limited by applicable law and except as the enforcement hereof may be limited by bankruptcy, insolvency, reorganization, moratorium or other similar laws relating to or affecting the rights and remedies of creditors or by general equitable principles.
- 9. This Amendment together with the Original Agreement (including all schedules and exhibits attached hereto and thereto and Placement Notices issued pursuant hereto and thereto), constitutes the entire agreement and supersedes all other prior and contemporaneous agreements and undertakings, both written and oral, among the parties hereto with regard to the subject matter hereof. Neither this Amendment nor any term hereof may be amended except pursuant to a written instrument executed by the Company and the Agents. In the event that any one or more of the provisions contained herein, or the application thereof in any circumstance, is held invalid, illegal or unenforceable as written by a court of competent jurisdiction, then such provision shall be given full force and effect to the fullest possible extent that it is valid, legal and enforceable, and the remainder of the terms and provisions herein shall be construed as if such invalid, illegal or unenforceable term or provision was not contained herein, but only to the extent that giving effect to such provision and the remainder of the terms and provisions hereof shall be in accordance with the intent of the parties as reflected in this Amendment. All references in the Original Agreement to the "Agreement" shall mean the Original Agreement as amended by this Amendment; provided, however, that all references to "date of this Agreement" in the Original Agreement shall continue to refer to the date of the Original Agreement.
- 10. This Amendment shall be governed by and construed in accordance with the internal laws of the State of New York applicable to agreements made and to be performed in such state. Any legal suit, action or proceeding arising out of or based upon this Amendment or the transactions contemplated hereby may be instituted in the federal courts of the United States of America located in the Borough of Manhattan in the City of New York or the courts of the State of New York in each case located in the Borough of Manhattan in the City of New York (collectively, the "Specified Courts"), and each party irrevocably submits to the exclusive jurisdiction (except for proceedings instituted in regard to the enforcement of a judgment of any such court, as to which such jurisdiction is non-exclusive) of such courts in any such suit, action or proceeding. Service of any process, summons, notice or document by mail to such party's address set forth above shall be effective service of process for any suit, action or other proceeding brought in any such court. The parties irrevocably and unconditionally waive any objection to the laying of venue of any suit, action or other proceeding in the Specified Courts and irrevocably and unconditionally waive and agree not to plead or claim in any such court that any such suit, action or other proceeding brought in any such court has been brought in an inconvenient forum. The provisions of this paragraph shall survive any termination of this Amendment.
- 11. This Amendment may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument, and may be delivered by facsimile transmission or by electronic delivery of a portable document format (PDF) file (including any electronic signature covered by the U.S. federal ESIGN Act of 2000, Uniform Electronic Transactions Act, the Electronic Signatures and Records Act or other applicable law, e.g., www.docusign.com).

[Remainder of Page Intentionally Blank]

If the foregoing correctly sets forth the understanding among the Company and the Agents, please so indicate in the space provided below for that purpose, whereupon this letter shall constitute a binding amendment to the Original Agreement among the Company and the Agents.

Very truly yours,

JEFFERIES LLC

/s/ Donald Lynaugh By:

Donald Lynaugh Name: Title Managing Director

STIFEL, NICOLAUS & COMPANY, INCORPORATED

By: /s/ Nathan Thompson

Name: Nathan Thompson

Title Director

ACCEPTED as of the date

first-above written:

XENON PHARMACEUTICALS INC.

By: /s/ Sherry Aulin

Sherry Aulin Name:

Chief Financial Officer Title



Blake, Cassels & Graydon LLP
Barristers & Solicitors
Patent & Trade-mark Agents
595 Burrard Street, P.O. Box 49314
Suite 2600, Three Bentall Centre
Vancouver BC V7X 1L3 Canada
Tel: 604-631-3300 Fax: 604-631-3309

March 1, 2022

Reference:191296/1

Xenon Pharmaceuticals Inc. 200 – 3650 Gilmore Way Burnaby, BC V5G 4W8 Canada

RE: At-the-Market Equity Offering Program of Xenon Pharmaceuticals Inc.

We have acted as Canadian counsel to Xenon Pharmaceuticals Inc. (the "Company"), a corporation continued under the federal laws of Canada, in connection with the offer and sale by the Company of up to US\$250,000,000 of common shares in the capital of the Company (the "Shares"), pursuant to a Registration Statement on Form S-3 (Registration No. 333-260010) (the "Registration Statement"), filed by the Company with the Securities and Exchange Commission (the "SEC") under the Securities Act of 1933, as amended (the "Securities Act"), the prospectus included in the Registration Statement (the "Base Prospectus"), and the prospectus supplement related to the Shares to be filed by the Company with the SEC on March 1, 2022 pursuant to Rule 424(b) promulgated under the Securities Act (together with the Base Prospectus, the "Prospectus").

The offer and sale of the Shares is being made pursuant to that certain at-the-market equity offering sales agreement (the "Sales Agreement"), dated as of August 6, 2020, as amended March 1, 2022, by and between the Company, Jefferies LLC and Stifel, Nicolaus & Company, Incorporated.

In connection with giving this opinion, we have examined the Registration Statement (including exhibits thereto) and the Prospectus. We have also examined originals, certified or otherwise identified to our satisfaction, of such public and corporate records, certificates, instruments and other documents as we have considered necessary in order to express the opinion set out below. With respect to the accuracy of factual matters material to this opinion, we have relied upon certificates or comparable documents and representations of public officials and of officers and representatives of the Company.

In giving this opinion, we have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as originals and the conformity to original documents of all documents submitted to us as copies, certified or otherwise identified to our satisfaction. We have also considered such questions of law as we have deemed relevant and necessary as a basis for the opinion hereinafter expressed.

The opinion expressed herein is limited to matters governed by the laws of the Province of British Columbia and the laws of Canada applicable therein in effect on the date hereof. We express no opinion with respect to the laws of any other jurisdiction.

Based and relying upon and subject to the foregoing, we are of the opinion that the offer and sale of the Shares has been duly authorized by the Company and, when the Shares are issued and paid for in accordance with the terms of the Sales Agreement, the Shares will be validly issued, fully paid and non-assessable shares in the capital of the Company.

We hereby consent to the reference to our firm under the caption "Legal Matters" in the Prospectus and to the filing of this opinion letter as an exhibit to a Current Report on Form 8-K to be filed by the Company with the SEC for incorporation by reference into the Registration Statement.

This opinion is effective as at the date hereof and is based upon laws in effect and facts in existence as at the date hereof. We express no opinion as to the effect of future laws or judicial decisions on the subject matter hereof, nor do we undertake any duty to modify this opinion to reflect subsequent facts or developments concerning the Company or developments in the law occurring after the date hereof.

In giving this consent, we do not hereby agree that we are within the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the SEC promulgated thereunder.

Yours truly,

/s/ Blake, Cassels & Graydon LLP