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

**FORM S-8
REGISTRATION STATEMENT**

*Under
THE SECURITIES ACT OF 1933*

XENON PHARMACEUTICALS INC.

(Exact name of registrant as specified in its charter)

Canada
(State or other jurisdiction of
incorporation or organization)

98-0661854
(I.R.S. Employer
Identification No.)

**200 – 3650 Gilmore Way
Burnaby, British Columbia V5G 4W8
Canada**

(Address of principal executive offices, including zip code)

Amended and Restated 2014 Equity Incentive Plan
(Full title of the plan)

**Ian Mortimer
President and Chief Executive Officer
Xenon Pharmaceuticals Inc.
200 – 3650 Gilmore Way
Burnaby, British Columbia V5G 4W8
Canada**

(Name and address of agent for service)

(604) 484-3300
(Telephone number, including area code, of agent for service)

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of “large accelerated filer,” “accelerated filer,” “smaller reporting company,” and “emerging growth company” in Rule 12b-2 of the Exchange Act.

Large accelerated filer	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
Emerging growth company	<input type="checkbox"/>		

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 7(a)(2)(B) of the Securities Act.

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**XENON PHARMACEUTICALS INC.
REGISTRATION OF ADDITIONAL SECURITIES
PURSUANT TO GENERAL INSTRUCTION E**

This Registration Statement registers 5,200,000 additional common shares of Xenon Pharmaceuticals Inc. (the “**Registrant**”) to be issued pursuant to the Registrant’s Amended and Restated 2014 Equity Incentive Plan. The board of directors of the Registrant approved an amendment, subject to shareholder approval, to the Registrant’s Amended and Restated 2014 Equity Incentive Plan on April 17, 2024 and such amendment was approved by the Registrant’s shareholders on June 4, 2024. Accordingly, the contents of (i) the previous Registration Statement on Form S-8 filed by the Registrant with the Securities and Exchange Commission (the “**Commission**”) on November 5, 2014 (File No. 333-199860); (ii) the previous Registration Statement on Form S-8 filed by the Registrant with the Commission pursuant to General Instruction E on March 16, 2015 (File No. 333-202765); (iii) the previous Registration Statement on Form S-8 filed by the Registrant with the Commission pursuant to General Instruction E on March 9, 2016 (File No. 333-210050); (iv) the previous Registration Statement on Form S-8 filed by the Registrant with the Commission pursuant to General Instruction E on March 8, 2017 (File No. 333-216543); (v) the previous Registration Statement on Form S-8 filed by the Registrant with the Commission pursuant to General Instruction E on March 7, 2018 (File No. 333-223497); (vi) the previous Registration Statement on Form S-8 filed by the Registrant with the Commission pursuant to General Instruction E on March 6, 2019 (File No. 333-230103); (vii) the previous Registration Statement on Form S-8 filed by the Registrant with the Commission pursuant to General Instruction E on March 9, 2020 (File No. 333-237036); (viii) the previous Registration Statement on Form S-8 filed by the Registrant with the Commission pursuant to General Instruction E on June 3, 2020 (File No. 333-238895); and (ix) the previous Registration Statement on Form S-8 filed by the Registrant with the Commission pursuant to General Instruction E on June 2, 2022 (File No. 333-265377) (together, the “**Previous Forms S-8**”), including periodic reports filed after the Previous Forms S-8 to maintain current information about the Registrant, are incorporated by reference into this Registration Statement pursuant to General Instruction E of Form S-8.

Item 3. Incorporation of Documents by Reference

The following documents previously filed with the Commission are hereby incorporated by reference:

- (1) The Registrant’s Annual Report on [Form 10-K](#) for the fiscal year ended December 31, 2023, filed with the Commission on February 29, 2024;
- (2) All other reports filed with the Commission pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the “**Act**”), since the end of the fiscal year covered by the Registrant’s Annual Report referred to in (1) above; and
- (3) The description of the Registrant’s common shares contained in the Registration Statement on [Form 8-A12B](#) (File No. 001-36687) filed with the Commission on October 10, 2014, pursuant to Section 12(b) of the Act, as updated by any amendment or report filed for the purpose of updating such description, including the description of the Registrant’s Common Shares contained in Exhibit 4.3 to its Annual Report on Form 10-K for the fiscal year ended December 31, 2023, filed on February 29, 2024.

All documents subsequently filed by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Act, prior to the filing of a post-effective amendment which indicates that all securities registered have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference in this Registration Statement and to be part hereof from the date of filing of such documents; provided, however, that documents or information deemed to have been furnished and not filed in accordance with the rules of the Commission shall not be deemed incorporated by reference into this Registration Statement. Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any subsequently filed document which also is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

Under no circumstances will any information furnished under current items 2.02 or 7.01 of Form 8-K be deemed incorporated herein by reference unless such Form 8-K expressly provides to the contrary.

Item 8. Exhibits

Exhibit Number	Description of Document	Incorporated by Reference			
		Form	File No.	Exhibit	Filing Date
4.1	Specimen common share certificate of the Registrant.	S-1/A	333-198666	4.1	10/6/2014
5.1	Opinion of Blake, Cassels & Graydon LLP.				
10.1	Amended and Restated 2014 Equity Incentive Plan and related form agreement.	8-K	001-36687	10.1	6/5/2024
23.1	Consent of KPMG LLP, Independent Registered Public Accounting Firm.				
23.2	Consent of Blake, Cassels & Graydon LLP (contained in Exhibit 5.1 hereto).				
24.1	Power of Attorney (contained on signature page hereto).				
107	Filing Fee Table				

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Burnaby, British Columbia, Canada, on June 5, 2024.

XENON PHARMACEUTICALS INC.

By: /s/ Ian Mortimer

Ian Mortimer

President and Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Ian Mortimer and Sherry Aulin as his and her true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities (including his or her capacity as a director and/or officer of Xenon Pharmaceuticals Inc.) to sign any or all amendments (including post-effective amendments) to this registration statement on Form S-8, as amended, and to file the same, with all exhibits thereto, and all other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agents or any of them, or his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement on Form S-8 has been signed by the following persons in the capacities and on the dates indicated.

Name	Title	Date
<u>/s/ Ian Mortimer</u> Ian Mortimer	President, Chief Executive Officer and Director (Principal Executive Officer)	June 5, 2024
<u>/s/ Sherry Aulin</u> Sherry Aulin	Chief Financial Officer (Principal Financial and Accounting Officer)	June 5, 2024
<u>/s/ Dawn Svoronos</u> Dawn Svoronos	Chair of the Board of Directors	June 5, 2024
<u>/s/ Gillian Cannon</u> Gillian Cannon	Director	June 5, 2024
<u>/s/ Steven Gannon</u> Steven Gannon	Director	June 5, 2024
<u>/s/ Elizabeth Garofalo</u> Elizabeth Garofalo	Director	June 5, 2024
<u>/s/ Justin Gover</u> Justin Gover	Director	June 5, 2024
<u>/s/ Patrick Machado</u> Patrick Machado	Director	June 5, 2024
<u>/s/ Gary Patou</u> Gary Patou	Director	June 5, 2024



Blake, Cassels & Graydon LLP
Barristers & Solicitors
Patent & Trademark Agents
1133 Melville Street
Suite 3500, The Stack
Vancouver, B.C. V6E 4E5 Canada
Tel: 604-631-3300 Fax: 604-631-3309

Exhibit 5.1

June 5, 2024

Reference:191296/1

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

RE: Registration Statement on Form S-8 of Xenon Pharmaceuticals Inc. (the “Company”)

We have acted as Canadian counsel to the Company, a corporation continued under the federal laws of Canada, in connection with the Registration Statement on Form S-8 (the “**Registration Statement**”) to be filed by the Company with the U.S. Securities and Exchange Commission (the “**SEC**”) relating to the registration under the Securities Act of 1933, as amended, of 5,200,000 common shares in the capital of the Company (the “**Shares**”) to be issued under the Company’s Amended and Restated 2014 Equity Incentive Plan, as amended June 4, 2024 (the “**Plan**”).

In connection with giving this opinion, we have examined the Registration Statement (including exhibits thereto). 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.

Based and relying upon and subject to the foregoing, we are of the opinion that the Shares, when issued and sold by the Company in accordance with the terms of the Plan and the agreements contemplated by the Plan, will be validly issued, fully paid and non-assessable shares in the capital of the Company.

We hereby consent to the filing of this opinion letter as an exhibit to the Registration Statement and further consent to the use of our name wherever appearing in 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.

Yours truly,

/s/ Blake, Cassels & Graydon LLP

Consent of Independent Registered Public Accounting Firm

We consent to the use of our report dated February 29, 2024, with respect to the consolidated financial statements of Xenon Pharmaceuticals Inc. (the Entity) which comprise the consolidated balance sheets as of December 31, 2023 and 2022, the related consolidated statements of operations and comprehensive loss, shareholders' equity and cash flows for each of the years in the three-year period ended December 31, 2023, and the related notes, and our report dated February 29, 2024 on the effectiveness of the Entity's internal control over financial reporting as of December 31, 2023, which are incorporated by reference.

/s/ KPMG LLP
Chartered Professional Accountants

June 5, 2024

Vancouver, Canada

Calculation of Filing Fee Tables

Form S-8
(Form Type)**Xenon Pharmaceuticals Inc.**
(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered Securities

Security Type	Security Class Title	Fee Calculation Rule	Amount Registered ⁽¹⁾	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
Equity	Common Shares, no par value per share	Other	5,200,000 ⁽²⁾	\$38.14 ⁽³⁾	\$198,328,000	\$147.60 per \$1,000,000	\$29,273.21
Total Offering Amounts							\$29,273.21
Total Fee Offsets							—
Net Fee Due							\$29,273.21

- (1) Pursuant to Rule 416(a) of the Securities Act of 1933, as amended (the “**Securities Act**”), this Registration Statement shall also cover any additional common shares of the Registrant that become issuable under the Amended and Restated 2014 Equity Incentive Plan (the “**Amended and Restated 2014 Plan**”) by reason of any share dividend, share split, recapitalization or other similar transaction effected without receipt of consideration that increases the number of the Registrant’s outstanding common shares.
- (2) Represents 5,200,000 additional common shares reserved for issuance under the Amended and Restated 2014 Plan, which shares became available for issuance pursuant to approval of the Amended and Restated 2014 Plan by the Registrant’s shareholders on June 4, 2024.
- (3) Estimated in accordance with Rules 457(c) and 457(h) of the Securities Act solely for the purpose of calculating the registration fee on the basis of \$38.14 per share, the average of the high and low prices of the Registrant’s common shares as reported on The Nasdaq Global Market on June 4, 2024.

