

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-8

REGISTRATION STATEMENT

UNDER

THE SECURITIES ACT OF 1933

Lexicon Pharmaceuticals, Inc.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

2445 Technology Forest Blvd., 11th Floor

The Woodlands, Texas

(Address of Principal Executive Offices)

76-0474169

(I.R.S. Employer
Identification No.)

77381

(Zip Code)

2026 Equity Incentive Plan

2026 Non-Employee Directors' Equity Incentive Plan

(Full titles of the plan)

Michael S. Exton, Ph.D.

Chief Executive Officer

2445 Technology Forest Blvd., 11th Floor

The Woodlands, Texas 77381

(281) 863-3000

(Name, address and telephone number, including area code, of agent for service)

copies to:

**Jackson A. O'Maley
Vinson & Elkins L.L.P.
1001 Fannin, Suite 2500
Houston, Texas 77002-6760
(713) 758-2222**

**Brian T. Crum
Senior Vice President and General Counsel
Lexicon Pharmaceuticals, Inc.
2445 Technology Forest Blvd., 11th Floor
The Woodlands, Texas 77381
(281) 863-3000**

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a 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 ☐ Accelerated filer ☐ Non-accelerated filer ☒ Smaller reporting company ☒ 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. ☐

EXPLANATORY NOTE

Lexicon Pharmaceuticals, Inc. (the “Company”) previously filed registration statements on Form S-8 (Registration Nos. 333-41532, 333-168678, 333-183020, 333-210145, 333-217873, 333-234569, 333-240169, 333-258568, 333-273683 and 333-289310) registering the issuance of an aggregate of 77,000,000 shares of the Company’s common stock under its 2017 Equity Incentive Plan and an aggregate of 4,200,000 shares of the Company’s common stock under its 2017 Non-Employee Directors’ Equity Incentive Plan.

On April 30, 2026, the Company’s stockholders approved an amendment and restatement of the 2017 Equity Incentive Plan that renamed the plan the 2026 Equity Incentive Plan and increased the total number of shares of the Company’s common stock that may be issued pursuant to stock awards granted under the plan from 75,000,000 to 90,000,000 shares.

On April 30, 2026, the Company’s stockholders approved an amendment and restatement of the 2017 Non-Employee Directors’ Equity Incentive Plan that renamed the plan the 2026 Non-Employee Directors’ Equity Incentive Plan and increased the total number of shares of the Company’s common stock that may be issued pursuant to stock awards granted under the plan from 4,000,000 to 6,000,000 shares.

Pursuant to General Instruction E to Form S-8 under the Securities Act of 1933, as amended, this registration statement on Form S-8 is being filed by the Company for the purpose of registering the issuance of an additional 15,000,000 shares of the Company’s common stock under the 2026 Equity Incentive Plan and an additional 2,000,000 shares of the Company’s common stock under the 2026 Non-Employee Directors’ Equity Incentive Plan as a result of such increases in the number of shares reserved for issuance under the plans. This registration statement will increase the number of shares registered under the 2026 Equity Incentive Plan and 2026 Non-Employee Directors’ Equity Incentive Plan to 92,000,000 and 6,200,000 shares, respectively. The content contained in the Company’s registration statements on Form S-8 (Registration Nos. 333-41532, 333-168678, 333-183020, 333-210145, 333-217873, 333-234569, 333-240169, 333-258568, 333-273683 and 333-289310) is hereby incorporated by reference pursuant to General Instruction E.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 8. Exhibits.

<u>Exhibit No.</u>	<u>Description</u>
3.1	— Seventh Amended and Restated Certificate of Incorporation (filed as Exhibit 3.1 to the Company's Current Report on Form 8-K dated April 30, 2026 and incorporated by reference herein).
3.2	— Second Amended and Restated Bylaws (filed as Exhibit 3.2 to the Company's Current Report on Form 8-K dated April 26, 2012 and incorporated by reference herein).
4.1	— Securities Purchase Agreement, dated June 17, 2007, with Invus, L.P. (filed as Exhibit 10.1 to the Company's Current Report on Form 8-K dated June 17, 2007 and incorporated by reference herein).
4.2	— Amendment, dated October 7, 2009, to Securities Purchase Agreement , dated June 17, 2007, with Invus, L.P. (filed as Exhibit 10.1 to the Company's Current Report on Form 8-K dated October 7, 2009 and incorporated by reference herein).
4.3	— Registration Rights Agreement , dated June 17, 2007, with Invus, L.P. (filed as Exhibit 10.3 to the Company's Current Report on Form 8-K dated June 17, 2007 and incorporated by reference herein).
4.4	— Stockholders' Agreement , dated June 17, 2007, with Invus, L.P. (filed as Exhibit 10.4 to the Company's Current Report on Form 8-K dated June 17, 2007 and incorporated by reference herein).
4.5	— Supplement to Transaction Agreements , dated March 15, 2010, with Invus, L.P. and Invus C.V. (filed as Exhibit 10.1 to the Company's Current Report on Form 8-K dated March 15, 2010 and incorporated by reference herein).
4.6	— Supplement No. 2 to Transaction Agreements , dated February 23, 2012, with Invus, L.P. and Invus C.V. (filed as Exhibit 10.1 to the Company's Current Report on Form 8-K dated February 23, 2012 and incorporated by reference herein).
4.7	— Supplement No. 3 to the Transaction Agreements , dated December 16, 2020, with Invus, L.P. and Invus C.V. (filed as Exhibit 10.1 to the Company's Current Report on Form 8-K dated December 16, 2020 and incorporated by reference herein).
4.8	— Description of Common Stock (filed as Exhibit 4.8 to the Company's Annual Report on Form 10-K for the period ended December 31, 2021 and incorporated by reference herein).
4.9	— Form of Warrant Agreement , dated May 4, 2026, with Hercules Capital, Inc. and affiliated parties (filed as Exhibit 4.1 to the Company's Quarterly Report on Form 10-Q for the period ended June 30, 2026 and incorporated herein by reference).
*5.1	— Opinion of Vinson & Elkins L.L.P.
*23.1	— Consent of Independent Registered Public Accounting Firm.
*23.2	— Consent of Vinson & Elkins L.L.P. (contained in Exhibit 5.1).
*24.1	— Power of Attorney (contained in signature page).
99.1	— 2026 Equity Incentive Plan (filed as Exhibit 10.1 to the Company's Current Report on Form 8-K dated April 30, 2026 and incorporated by reference herein).
99.2	— 2026 Non-Employee Directors' Equity Incentive Plan (filed as Exhibit 10.2 to the Company's Current Report on Form 8-K dated April 30, 2026 and incorporated by reference herein).
*107.1	— Calculation of Filing Fee Tables.

* Filed herewith.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, 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 the City of The Woodlands, in the State of Texas, on August 6, 2026.

Lexicon Pharmaceuticals, Inc.

By: /s/ Michael S. Exton, Ph.D.
Michael S. Exton, Ph.D.
Chief Executive Officer

POWER OF ATTORNEY

Each person whose signature appears below appoints Michael S. Exton, Ph.D. and Scott M. Coiante, and each of them, any of whom may act without the joinder of the other, as his or 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, to sign any and all amendments (including post-effective amendments) to this Registration Statement, 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 full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully to all intents and purposes as he might or would do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them or their or his substitute and 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 HAS BEEN SIGNED BY THE FOLLOWING PERSONS IN THE CAPACITIES AND ON THE DATES INDICATED BELOW.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Michael S. Exton, Ph.D.</u> Michael S. Exton, Ph.D.	Chief Executive Officer and Director (Principal Executive Officer)	August 6, 2026
<u>/s/ Scott M. Coiante</u> Scott M. Coiante	Senior Vice President and Chief Financial Officer (Principal Financial and Accounting Officer)	August 6, 2026
<u>/s/ Raymond Debbane</u> Raymond Debbane	Chairman of the Board of Directors	August 6, 2026
<u>/s/ Philippe J. Amouyal</u> Philippe J. Amouyal	Director	August 6, 2026

<u>/s/ Samuel L. Barker</u> Samuel L. Barker, Ph.D.	Director	August 6, 2026
<u>/s/ Ivan H. Cheung</u> Ivan H. Cheung	Director	August 6, 2026
<u>/s/ Christopher J. Sobecki</u> Christopher J. Sobecki	Director	August 6, 2026
<u>/s/ Diane E. Sullivan</u> Diane E. Sullivan	Director	August 6, 2026
<u>/s/ Judith L. Swain</u> Judith L. Swain, M.D.	Director	August 6, 2026

Calculation of Filing Fee Tables

Form S-8 Registration Statement (Form Type)

Lexicon 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 (2)	Maximum Aggregate Offering Price (2)	Fee Rate	Amount of Registration
Equity	Common Stock, \$0.001 par value per share	Rules 457(c) and 457(h)	15,000,000	\$ 2.28	\$ 34,200,000	\$138.10 per \$1,000,000	\$
Equity	Common Stock, \$0.001 par value per share	Rules 457(c) and 457(h)	2,000,000	\$ 2.28	\$ 4,560,000	\$138.10 per \$1,000,000	\$
Total Offering Amounts.....				— \$	38,760,000	— \$	
Total Fee Offsets.....				—	—	—	
Net Fee Due.....				—	—	— \$	

(1) The Form S-8 registration statement to which this Exhibit 107.1 is attached registers 17,000,000 shares of common stock, par value \$0.001 of Lexicon Pharmaceuticals, Inc., a Delaware corporation, pursuant to the 2026 Equity Incentive Plan or 2026 Non-Employee Directors' Equity Incentive Plan (the "Plans"), as noted above. Pursuant to Rule 416 under the Securities Act of 1933, as amended (the "Securities Act"), the Registration Statement shall be deemed to cover an indeterminate number of additional shares of Common Stock as may be necessary to adjust the number of shares of common stock that may become issuable by reason of stock splits, stock dividends or similar transactions pursuant to the anti-dilution provisions of the Plans.

(2) Estimated solely for purposes of calculating the registration fee, in accordance with Rule 457(h), on the basis of the price of securities of the same class, as determined in accordance with Rule 457(c), using the average of the high and low prices for the common stock reported on The Nasdaq Capital Market on August 3, 2026.

August 6, 2026

Lexicon Pharmaceuticals, Inc.
2445 Technology Forest Blvd., 11th Fl.
The Woodlands, Texas 77381
Ladies and Gentlemen:

We have acted as counsel for Lexicon Pharmaceuticals, Inc., a Delaware corporation (the “Company”), in connection with the Company’s registration under the Securities Act of 1933, as amended (the “Act”), of the offer and sale of an aggregate of up to (i) 15,000,000 shares of the Company’s common stock, par value \$0.01 per share (the “Shares”), pursuant to the Company’s registration statement on Form S-8 (the “Registration Statement”) to be filed with the Securities and Exchange Commission on August 4, 2026, which Shares may be issued from time to time in accordance with the terms of the Lexicon Pharmaceuticals, Inc. 2026 Equity Incentive Plan (as amended from time to time, the “Plan”) and (ii) 2,000,000 Shares pursuant to the Registration Statement, which Shares may be issued from time to time in accordance with the terms of the Lexicon Pharmaceuticals, Inc. 2026 Non-Employee Directors’ Equity Incentive Plan (as amended from time to time, the “NED Plan”).

In reaching the opinions set forth herein, we have examined and are familiar with originals or copies, certified or otherwise identified to our satisfaction, of such documents and records of the Company and such statutes, regulations and other instruments as we deemed necessary or advisable for purposes of this opinion, including (i) the Registration Statement, (ii) certain resolutions adopted by the board of directors of the Company, (iii) the Plan and the NED Plan, and (iv) such other certificates, instruments, and documents as we have considered necessary for purposes of this opinion. As to any facts material to our opinions, we have made no independent investigation or verification of such facts and have relied, to the extent that we deem such reliance proper, upon certificates of public officials and officers or other representatives of the Company.

We have assumed (i) the legal capacity of all natural persons, (ii) the genuineness of all signatures, (iii) the authority of all persons signing all documents submitted to us on behalf of the parties to such documents, (iv) the authenticity of all documents submitted to us as originals, (v) the conformity to authentic original documents of all documents submitted to us as copies, (vi) that all information contained in all documents reviewed by us is true, correct and complete, and (vii) that the Shares will be issued in accordance with the terms of the Plan and the NED Plan.

Based on the foregoing and subject to the limitations set forth herein, and having due regard for the legal considerations we deem relevant, we are of the opinion that the Shares have been duly authorized and, when the Shares are issued by the Company in accordance with the terms of the Plan and the NED Plan and the instruments executed pursuant to the Plan and the NED Plan, as applicable, the Shares will be validly issued, fully paid and non-assessable.

This opinion is limited in all respects to the General Corporation Law of the State of Delaware. We express no opinion as to any other law or any matter other than as expressly set forth above, and no opinion as to any other law or matter may be inferred or implied herefrom. The opinions expressed herein are rendered as of the date hereof, and we expressly disclaim any obligation to update this letter or advise you of any change in any matter after the date hereof.

This opinion may be filed as an exhibit to the Registration Statement. In giving this consent, we do not thereby admit that we come within the category of persons whose consent is required under Section 7 of the Act.

Very truly yours,

/s/ Vinson & Elkins L.L.P.
Vinson & Elkins L.L.P.

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statement (Form S-8) pertaining to the 2026 Equity Incentive Plan and the 2026 Non-Employee Directors' Equity Incentive Plan of Lexicon Pharmaceuticals, Inc. of our report dated March 5, 2026, with respect to the consolidated financial statements of Lexicon Pharmaceuticals, Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2025, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Houston, Texas
August 6, 2026