

**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)**8800 Technology Forest Place  
The Woodlands, Texas**  
(Address of Principal Executive Offices)**76-0474169**  
(I.R.S. Employer  
Identification No.)**77381**  
(Zip Code)**2017 Equity Incentive Plan**

(Full titles of the plan)

**Lonnel Coats****President and Chief Executive Officer****8800 Technology Forest Place  
The Woodlands, Texas 77381  
(281) 863-3000**

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

*copies to:***David P. Oelman  
Vinson & Elkins L.L.P.  
1001 Fannin, Suite 2500  
Houston, Texas 77002-6760  
(713) 758-2222****Brian T. Crum  
Vice President and General Counsel  
Lexicon Pharmaceuticals, Inc.  
8800 Technology Forest Place  
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.

**CALCULATION OF REGISTRATION FEE**

Title of Securities to be Registered	Title of Plan	Amount to be Registered (1)	Proposed Maximum Offering Price Per Share (2)	Proposed Maximum Aggregate Offering Price (2)	Amount of Registration Fee
Common Stock, par value \$0.001	2017 Equity Incentive Plan	5,000,000 shares	\$ 3.75	\$ 18,750,000	\$ 2,434

(1) Pursuant to Rule 416(a) under the Securities Act of 1933, this registration statement shall be deemed to cover any additional shares of common stock that become issuable under the 2017 Equity Incentive Plan to prevent dilution resulting from stock splits, stock dividends or similar transactions.

(2) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457 (c) and (h) under the Securities Act of 1933. The proposed maximum offering price per share, proposed maximum aggregate offering price and amount of registration fee are based on the average of the high and low sales price per share of the registrant's common stock, as reported on The Nasdaq Global Select Market on October 31, 2019.

## 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 and 333-217873) registering the issuance of an aggregate of 15,000,000 shares of the Company’s common stock under its 2017 Equity Incentive Plan.

On April 25, 2019, the Company’s stockholders approved an amendment and restatement of the 2017 Equity Incentive Plan that 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 15,000,000 to 20,000,000 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 5,000,000 shares of the Company’s common stock under the 2017 Equity Incentive Plan as a result of such increase in the number of shares reserved for issuance under the plan. This registration statement will increase the number of shares registered under the 2017 Equity Incentive Plan to 20,000,000 shares. The content contained in the Company’s registration statements on Form S-8 (Registration Nos. 333-41532, 333-168678, 333-183020, 333-210145 and 333-217873) 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>
4.1	— Amended and Restated Certificate of Incorporation (filed as Exhibit 3.1 to the Company’s Current Report on Form 8-K dated April 26, 2012 and incorporated by reference herein).
4.2	— Certificate of Amendment to Amended and Restated Certificate of Incorporation (filed as Exhibit 3.1 to the Company’s Current Report on Form 8-K dated May 20, 2015 and incorporated by reference herein).
4.3	— 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).
4.4	— 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).
4.5	— 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).
4.6	— 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).
4.7	— 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).
4.8	— 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).
4.9	— 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).
4.10	— Indenture related to the 5.25% Convertible Senior Notes due 2021, dated as of November 26, 2014, with Wells Fargo Bank, N.A. (filed as Exhibit 4.1 to the Company’s Current Report on Form 8-K dated November 26, 2014 and incorporated by reference herein).
4.11	— Form of 5.25% Convertible Senior Notes due 2021 (filed as Exhibit 4.2 to the Company’s Current Report on Form 8-K dated November 26, 2014 and incorporated by reference herein).
*5.1	— <a href="#">Opinion of Vinson &amp; Elkins L.L.P.</a>
*23.1	— <a href="#">Consent of Ernst &amp; Young LLP</a>
*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	— 2017 Equity Incentive Plan (filed as Exhibit 10.1 to the Company’s Current Report on Form 8-K dated April 25, 2019 and incorporated by reference herein).

\* 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 November 7, 2019.

### Lexicon Pharmaceuticals, Inc.

By: /s/ Lonnel Coats

Lonnel Coats  
*President and Chief Executive Officer*

## POWER OF ATTORNEY

Each person whose signature appears below appoints Lonnel Coats and Jeffrey L. Wade, 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/ Lonnel Coats</u> Lonnel Coats	President, Chief Executive Officer and Director (Principal Executive Officer)	November 7, 2019
<u>/s/ Jeffrey L. Wade</u> Jeffrey L. Wade	Executive Vice President, Corporate and Administrative Affairs and Chief Financial Officer (Principal Financial Officer)	November 7, 2019
<u>/s/ James F. Tessmer</u> James F. Tessmer	Vice President, Finance and Accounting (Principal Accounting Officer)	November 7, 2019
<u>/s/ Raymond Debbane</u> Raymond Debbane	Chairman of the Board of Directors	November 7, 2019
<u>/s/ Philippe J. Amouyal</u> Philippe J. Amouyal	Director	November 7, 2019

<u>/s/ Samuel L. Barker</u> Samuel L. Barker, Ph.D.	Director	November 7, 2019
<u>/s/ Robert J. Lefkowitz</u> Robert J. Lefkowitz, M.D.	Director	November 7, 2019
<u>/s/ Alan S. Nies</u> Alan S. Nies, M.D.	Director	November 7, 2019
<u>/s/ Frank P. Palantoni</u> Frank P. Palantoni	Director	November 7, 2019
<u>/s/ Christopher J. Sobecki</u> Christopher J. Sobecki	Director	November 7, 2019
<u>/s/ Judith L. Swain</u> Judith L. Swain, M.D.	Director	November 7, 2019

## EXHIBIT INDEX

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\* Filed herewith.

November 7, 2019

Lexicon Pharmaceuticals, Inc.  
8800 Technology Forest Place  
The Woodlands, Texas 77381-1160

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 additional 5,000,000 shares of the Company’s common stock, par value \$0.001 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 November 7, 2019, which Shares may be issued from time to time in accordance with the terms of the Company’s 2017 Equity Incentive Plan (as amended from time to time, the “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 (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.

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 instruments executed pursuant to the Plan, as applicable, that govern the awards to which any Share relates, the Shares will be validly issued, fully paid and non-assessable.

This opinion is limited in all respects to the Delaware General Corporation Law. 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, LLP



**Consent of Independent Registered Public Accounting Firm**

We consent to the incorporation by reference in the Registration Statement (Form S-8) pertaining to the 2017 Equity Incentive Plan of Lexicon Pharmaceuticals, Inc. of our reports dated March 15, 2019, with respect to the consolidated financial statements of Lexicon Pharmaceuticals, Inc. and the effectiveness of internal control over financial reporting of Lexicon Pharmaceuticals, Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2018, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Houston, Texas  
November 7, 2019