Filed Pursuant to Rule 433
Issuer Free Writing Prospectus dated November 20, 2014
Relating to Preliminary Prospectus Supplement dated November 19, 2014
Registration Statement No. 333-198493

Lexicon Pharmaceuticals, Inc. 49,751,244 Shares of Common Stock

The following information relates only to the securities described below and should be read together with the preliminary prospectus supplement dated November 19, 2014, including the documents incorporated by reference therein and the accompanying prospectus dated September 12, 2014 and the documents incorporated by reference therein relating to these securities. The following information supplements and updates the information contained in the preliminary prospectus supplement and accompanying prospectus.

Issuer: Lexicon Pharmaceuticals, Inc., a Delaware corporation

Ticker / Exchange: LXRX / The NASDAQ Global Select Market

Title of Securities: Common stock, \$0.001 par value per share, of the Issuer ("Common Stock")

Shares Offered and Sold: 49,751,244 shares of Common Stock (or 57,213,931 shares of Common Stock if the underwriters

exercise their option to purchase additional shares in full).

Last Reported Sale Price of Common Stock on The NASDAQ Global Select Market on November 20, 2014: \$1.005

Initial Price to Public: \$1.005

Use of Proceeds:The net proceeds of this offering, excluding the Private Placement and Notes offering, each as defined below, are estimated to be approximately \$46.8 million after deducting underwriting

discounts and commissions and estimated offering expenses (or approximately \$53.9 million if

the underwriters exercise in full their option to purchase additional shares).

The Issuer currently intends to use the net proceeds from this offering, together with the net

proceeds, if any, from the Notes Offering and the Private Placement, for the clinical development of its drug candidates and its other nonclinical research and development efforts. The Issuer may also use a portion of the net proceeds to acquire or invest in complementary products and

technologies or for general corporate purposes.

Concurrent Convertible Notes Offering: Concurrently with this offering, the Issuer is offering \$80,000,000 principal amount of its 5.25%

Convertible Senior Notes due 2021 (the "Notes") (or a total of \$95,000,000 principal amount if the initial purchasers in that offering exercise in full their over-allotment option) in a separate private offering to qualified institutional buyers. The Notes will be convertible into an aggregate of 66,334,991 shares of Common Stock (or 78,772,802 shares of Common Stock if the initial purchasers in that offering exercise in full their over-allotment option), which represents an initial conversion price of approximately \$1.206 per share and an initial conversion rate of 829.1874 shares of Common Stock per \$1,000 principal amount of Notes (subject to adjustment in certain

circumstances). The Issuer estimates that the net

proceeds from its concurrent private offering of the Notes will be approximately \$77.0 million, or \$91.5 million if the initial purchasers' over-allotment option is exercised in full. The Notes and the Common Stock issuable upon conversion of the Notes have not been and will not be registered under the Securities Act of 1933, as amended and may not be offered or sold in the United States absent registration or an applicable exemption from registration.

Private Placement of Common Stock:

Concurrent with this offering, the Issuer will enter into a stock purchase agreement with Invus, L.P. ("Invus"), Invus C.V. and Artal International S.C.A ("Artal"), pursuant to which Artal will agree to purchase and the Issuer will agree to issue to Artal on the closing date of this offering an aggregate of 149,253,731 shares of the Issuer's common stock at \$1.005 per share, the price per share to the public in this offering (the "Private Placement") for total gross proceeds of \$150.0 million.

Common stock to be outstanding after the Common Stock Offering and the Private Placement:

713,839,502 shares (or 721,302,189 shares if the underwriters exercise in full their option to purchase additional shares), excluding the shares underlying the Notes.

Payment to Symphony

After the Common Stock Offering and the Private Placement, Invus and its affiliates will hold approximately 60.58% of the outstanding shares of the Issuer's common stock (or 59.95% of the outstanding shares of the Issuer's common stock if the underwriters exercise in full their option to purchase additional shares).

The \$23 million upfront payment the Issuer received from Ipsen Pharma SAS triggers the Issuer's obligation to pay Symphony Icon Holdings LLC approximately \$11.5 million in December 2014. The Issuer has the option of paying up to 50% of this payment to Symphony in shares of the Issuer's common stock. Although the Issuer has not made a determination of whether to issue shares in respect of the payment, the terms of the underwriting agreement for this offering permit

the Issuer to do so and to file a registration statement with the Securities and Exchange

Joint Book-Running Managers:

J.P. Morgan Securities LLC and Goldman, Sachs & Co.

Co-Managers:

Needham & Company, LLC and Stifel, Nicolaus & Company, Incorporated

Commission for the resale of these shares prior to the issuance of such shares.

The Issuer has filed a registration statement (including a prospectus dated September 12, 2014 and a preliminary prospectus supplement dated November 19, 2014) with the Securities and Exchange Commission, or SEC, for the offering to which this communication relates. Before you invest, you should read the prospectus in that registration statement, the preliminary prospectus supplement and other documents the Issuer has filed with the SEC for more complete information about the Issuer and this offering. You may get these documents for free by visiting EDGAR on the SEC website at www.sec.gov. Copies of the prospectus and the preliminary prospectus supplement may be obtained by contacting J.P. Morgan Securities LLC, Attention: Broadridge Financial Solutions, 1155 Long Island Avenue, Edgewood, New York 11717, or by calling (866) 803-9204 or from Goldman, Sachs & Co., 200 West Street, New York, NY 10282, Attention: Prospectus Department, or by telephone at 866-471-2526 or by e-mail at prospectus-ny@ny.email.gs.com.

This communication should be read in conjunction with the preliminary prospectus supplement dated November 19, 2014 and the accompanying prospectus. The information in this communication supersedes the

information in the preliminary prospectus supplement and the accompanying prospectus to the extent inconsistent with the information in the preliminary prospectus supplement and the accompanying prospectus.

Any disclaimers or other notices that may appear below are not applicable to this communication and should be disregarded. Such disclaimers or other notices were automatically generated as a result of this communication being sent via Bloomberg or another email system.