

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC. 20549

SCHEDULE 14A
(Rule 14A-101)

INFORMATION REQUIRED IN PROXY STATEMENT
SCHEDULE 14A INFORMATION

Proxy Statement Pursuant to Section 14(a) of
the Securities Exchange Act of 1934

Filed by the Registrant
Filed by a Party other than the Registrant
Check the appropriate box:

- Preliminary Proxy Statement Confidential, for Use of the Commission Only
(as permitted by Rule 14a-6(e)(2))
 Definitive Proxy Statement
 Definitive Additional Materials
 Soliciting Material Pursuant to Rule 14a-11(c) or Rule 14a-12

LEXICON PHARMACEUTICALS, INC.

(Name of Registrant as Specified In Its Charter)

(Name of Person(s) Filing Proxy Statement, if Other Than the Registrant)

Payment of Filing Fee (Check the appropriate box):

- No fee required.
 Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.

- (1) Title of each class of securities to which transaction applies: N/A
(2) Aggregate number of securities to which transaction applies: N/A
(3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined): N/A
(4) Proposed maximum aggregate value of transaction: N/A
(5) Total fee paid: \$0

- Fee paid previously with preliminary materials: N/A
 Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.

- (1) Amount Previously Paid:
(2) Form, Schedule or Registration Statement No.:
(3) Filing Party:
(4) Date Filed
-

***** Exercise Your *Right to Vote* *****
IMPORTANT NOTICE Regarding the Availability of Proxy Materials

LEXICON PHARMACEUTICALS, INC.

Meeting Information

Meeting Type: Annual Meeting
For holders as of: March 01, 2010
Date: April 29, 2010 **Time:** 8:00 AM CDT
Location: Lexicon Pharmaceuticals, Inc.
8800 Technology Forest Place
The Woodlands, TX

You are receiving this communication because you hold shares in the above named company.

This is not a ballot. You cannot use this notice to vote these shares. This communication presents only an overview of the more complete proxy materials that are available to you on the Internet. You may view the proxy materials online at www.proxyvote.com or easily request a paper copy (see reverse side)

We encourage you to access and review all of the important information contained in the proxy materials before voting.

**See the reverse side of this notice
to obtain proxy materials and voting instructions.**

LEXICON PHARMACEUTICALS, INC
8800 TECHNOLOGY FOREST PLACE
THE WOODLANDS, TX 77381-4287

— BEFORE YOU VOTE —
How to Access the Proxy Materials

Proxy Materials Available to VIEW or RECEIVE:

1. Notice & Proxy Statement 2. Annual Report

How to View Online:

Have the 12-Digit Control Number available (located on the following page) and visit: www.proxyvote.com

How to Request and Receive a PAPER or E-MAIL Copy:

If you want to receive a paper or e-mail copy of these documents, you must request one. There is NO charge for requesting a copy. Please choose one of the following methods to make your request:

- 1) BY INTERNET: www.proxyvote.com
- 2) BY TELEPHONE: 1-800-579-1639
- 3) BY EMAIL*: sendmaterials@proxyvote.com

* If requesting materials by e-mail, please send a blank e-mail with the 12-Digit Control Number (located on the following page) in the subject line.

Requests, instructions and other inquiries sent to this e-mail address will NOT be forwarded to your investment advisor. Please make the request as instructed above on or before April 15, 2010 to facilitate timely delivery.

— HOW TO VOTE —
Please Choose One of The Following Voting Methods

Vote in Person: Many shareholder meetings have attendance requirements including, but not limited to, the possession of an attendance ticket issued by the entity holding the meeting. Please check the meeting materials for any special requirements for meeting attendance. At the Meeting you will need to request a ballot to vote these shares.

Vote by Internet: To vote now by Internet, go to www.proxyvote.com. Have the 12 Digit Control Number available and follow the instructions.

Vote by Mail: You can vote by mail by requesting a paper copy of the materials, which will include a proxy card.

Voting items

The Board of Directors recommends that you vote FOR the following.

1. Election of Directors

Nominees:

01) Raymond Debbane 02) Robert J. Lefkowitz, MD 03) Alan S. Nies, MD

The Board of Directors recommends you vote FOR the following proposal(s):

4. Ratification and approval of the appointment of Ernst & Young LLP as the Company's independent auditors for the fiscal year ending December 31, 2010.

NOTE: In their discretion, upon such other matters that may properly come before the meeting or any adjournment or adjournments thereof.