(Last)

FORM 4

## UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

| OMB APPROVAL             |           |  |  |  |  |  |  |  |
|--------------------------|-----------|--|--|--|--|--|--|--|
| OMB Number:              | 3235-0287 |  |  |  |  |  |  |  |
| Estimated average burden |           |  |  |  |  |  |  |  |
| hours per response:      | 0.5       |  |  |  |  |  |  |  |

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

1. Name and Address of Reporting Person\*

LEFKOWITZ ROBERT J MD

(First)

(Middle)

## Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934

or Section 30(h) of the Investment Company Act of 1940

2. Issuer Name and Ticker or Trading Symbol
LEXICON PHARMACEUTICALS,
INC./DE [ LXRX ]

3. Date of Earliest Transaction (Month/Day/Year)

| 8800 TECHNOLOGY FOREST PLACE                        |   |        |                          |   | Oate o<br>/30/2  | of Earliest 010  | Transa                      | action (Mo                            | onth/E   | Day/Year)           |  |               |   |  |  |  |  |  |  |
|---|---|--------|--------------------------|---|--|--|-----------------------------|---------------------------------------|--|---------------------|--|---------------|---|--|--|--|--|--|--|
| (Street)<br>THE<br>WOODI                            | ANDS T  | x      | 77381                    |   | 4. If  | 4. If Amendment, Date of Original Filed (Month/Day/Year) |                             |                                       |  |                     |  |               |   | Line   | 6. Individual or Joint/Group Filing (Check Applicable Line)     X Form filed by One Reporting Person     Form filed by More than One Reporting |  |  |  |  |
| (City)  | (S  | state) | (Zip)                    |   |  |  |                             |                                       |  |                     |  |               |   |  | Persor   | 1  |  |  |  |
|   |   | Tab    | le I - Nor               | n-Deriv                                 | /ative   | e Se   | curities                    | s Acc                                 | quired,  | Dis                 | posed c  | of, o         | r Ben   | eficiall   | y Owned  |  |  |  |  |
| 1. Title of Security (Instr. 3)                     |   |        | Date<br>(Month/Day/Year) |   | 2A. Deemed<br>Execution Date,<br>if any<br>(Month/Day/Year |  | Transaction<br>Code (Instr. |                                       | 4. Securities Acquired (A)<br>Disposed Of (D) (Instr. 3, 4<br>5) |                     |  |               | Benefici  | es<br>ally<br>Following  | 6. Ownership<br>Form: Direct<br>(D) or Indirect<br>(I) (Instr. 4)  |  | 7. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4)  |  |  |
|   |   |        |                          |   |  |  | Code                        | v                                     | Amount   |                     | (A) or<br>(D)  | Price         | Transact<br>(Instr. 3                               | tion(s)  |  |  | (moti. 4)  |  |  |
|   |   | -      | Table II - I             |   |  |  |                             |                                       |  | •                   | osed of<br>onverti   | •             |   | -  | Owned  |  |  |  |  |
| 1. Title of<br>Derivative<br>Security<br>(Instr. 3) | 2. Conversion or Exercise Price of Derivative Security  3. Transaction Date Execution Date, if any (Month/Day/Year) |        | Date,                    | 4.<br>Transaction<br>Code (Instr.<br>8) |  |  |                             | 6. Date Ex<br>Expiratior<br>(Month/Da |  | of S<br>Und<br>Deri | itle and a<br>Securities<br>Ierlying<br>ivative S<br>tr. 3 and | s<br>Security | 8. Price of<br>Derivative<br>Security<br>(Instr. 5) | 9. Numbe<br>derivative<br>Securities<br>Beneficia<br>Owned<br>Following<br>Reported<br>Transacti<br>(Instr. 4) | ve<br>ies<br>ially<br>ng<br>ed<br>ction(s)   | 10.<br>Ownership<br>Form:<br>Direct (D)<br>or Indirect<br>(I) (Instr. 4) | 11. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4) |  |  |
|   |   |        |                          |   |  |  |                             |                                       |  |                     |  |               |   | Amount<br>or<br>Number   |  |  |  |  |  |

Date

Exercisable

(1)

(D)

Expiration

04/30/2020

Title

Common

## **Explanation of Responses:**

\$1.54

Stock Option

(Right to Buy)

 $1. \ Option \ vests \ with \ respect \ to \ 1/12 th \ of \ the \ shares \ subject \ to \ the \ option \ for \ each \ month \ of \ service \ following \ the \ date \ of \ grant.$ 

/s/ Robert J. Lefkowitz 05/03/2010

\$0

10,000

D

\*\* Signature of Reporting Person Date

Shares

10,000

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

\* If the form is filed by more than one reporting person, see Instruction 4 (b)(v).

04/30/2010

\*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Code

(A)

10,000

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.