FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

OMB APPROVAL OMB Number: Estimated average burden hours per response: 0.5

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

| 1. Name and Address of Reporting Person* Tessmer James F | | | | | | 2. Issuer Name and Ticker or Trading Symbol LEXICON PHARMACEUTICALS, INC./DE [LXRX] | | | | | | | | | eck all app Direct Offic | licable) tor er (give title | or (give title | | uer /ner pecify |
|---|---|--|--|-------|---|---|---|-----|---|--------------------------|------------------|--|---|--|---|-----------------------------------|----------------------|--|---|
| (Last) (First) (Middle) 8800 TECHNOLOGY FOREST PLACE | | | | | | 3. Date of Earliest Transaction (Month/Day/Year) 02/23/2011 | | | | | | | | | beiov | v) P, Finance | 2 & A | below) | |
| (Street) THE WOODLANDS TX 77381 | | | | | 4. 1 | 4. If Amendment, Date of Original Filed (Month/Day/Year) | | | | | | | | | i. Individual or Joint/Group Filing (Check Applicable ine) X Form filed by One Reporting Person Form filed by More than One Reporting Person | | | | |
| (City) | (City) (State) (Zip) | | | | | | | | | | | | | | | | | | |
| | | | le I - Noi | | | | | | <u> </u> | Dis | 1 | | | | | | | | |
| 1. Title of Security (Instr. 3) 2. Transa Date (Month/D | | | | | | - 1 | 2A. Deemed Execution Date, if any (Month/Day/Year) | | Code (I | Transaction Code (Instr. | | 4. Securities Acquired (A) Disposed Of (D) (Instr. 3, 4 5) | | | Benefi Owned | ies cially Following | Form (D) o | n: Direct r Indirect istr. 4) | 7. Nature of Indirect Beneficial Ownership |
| | | | | | | | | | Code | v | Amount | (A) or (D) Pri | | Price | Report Transa (Instr. | tion(s) | | | (Instr. 4) |
| Common Stock 02/23/ | | | | | 23/201 | 2011 | | A | | 6,900 | 6,906 A | | \$0 | 2 | 25,585 | | D | | |
| Common Stock 02/23/ | | | | | 23/201 | 11 | | | F ⁽⁴⁾ | | 2,116 | | D | \$1.8 | 1 23,469 | | | D | |
| | | - | Гable II - | | | | | | uired, D , option | | | | | | Owned | | | | |
| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deeme Execution if any (Month/Day | Date, | 4. Transaction Code (Instr. 8) | | | | 6. Date Exercisa Expiration Date (Month/Day/Yea | | ! | of S Und Der | 7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4) | | 8. Price of Derivative Security (Instr. 5) | | e es ally g | 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | Beneficial Ownership tt (Instr. 4) |
| | | | | | Code | v | (A) | (D) | Date Exercisab | | xpiration ate | Title | e | Amount or Number of Shares | | | | | |
| Stock Option (Right to Buy) | \$1.81 | 02/23/2011 | | | A | | 70,000 | | (1) | 0 |)2/23/2021 | | nmon tock | 70,000 | \$0 | 70,00 | 00 | D | |
| Restricted Stock Units | (2) | 02/23/2011 | | | A | | 30,000 | | (3) | | (3) | | nmon tock | 30,000 | \$0 | 30,00 | 00 | D | |

Explanation of Responses:

Stock)

- 1. Option vests with respect to 25% of the shares subject to the option on the first anniversary of grant (2/23/2012) and vests 1/48th per month for each month of service thereafter.
- $2. \ Each \ restricted \ stock \ unit \ represents \ a \ contingent \ right \ to \ receive \ one \ share \ of \ common \ stock.$
- 3. Restricted stock units vest with respect to 25% of the shares subject to the restricted stock units on February 28, 2012 and vest an additional 25% on February 28 of each of the three succeeding years
- 4. Withholding of a portion of issued shares by the Company in satisfaction of shareholder's tax withholding obligations with respect thereto.

/s/ James F. Tessmer

02/25/2011

** Signature of Reporting Person

Date

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

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.