FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

| OMB APPRO | JVAL | | | | | |
|------------------------|-----------|--|--|--|--|--|
| OMB Number: | 3235-0287 | | | | | |
| Estimated average burd | len | | | | | |
| 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).

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

| | | | | | | | | (| , | | | j , | | | | | | | | | |
|--|---|-------|--|---|---------|---|--|-------------------|---|-----------------------------------|---|-----------------------|---|-----------------------------------|---|---|---|--|---|---|--|
| 1. Name and Address of Reporting Person* SANDS ARTHUR T | | | | | | | 2. Issuer Name and Ticker or Trading Symbol LEXICON PHARMACEUTICALS, | | | | | | | | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable) | | | | | | |
| SANDS ARTHUR I | | | | | | | INC./DE [LXRX] | | | | | | | | X | Director | | | 10% C | wner | |
| (Last) (First) (Middle) | | | | | | | | | | | | | | | | Officer (below) | specify | | | | |
| (Last) (First) (Middle) 8800 TECHNOLOGY FOREST PLACE | | | | | | | 3. Date of Earliest Transaction (Month/Day/Year) 12/22/2011 | | | | | | | | | below) below) President & CEO | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| (Street) | treet) | | | | | | 4. If Amendment, Date of Original Filed (Month/Day/Year) | | | | | | | | 6. Individual or Joint/Group Filing (Check Applicable Line) | | | | | | |
| | THE TX 77381 | | | | | | | | | | | | | | X Form filed by One Reporting Person | | | | | | |
| , TOODE! | 11100 | | | | | | | | | | | | | | | Form fil Person | ed by Mo | re than | One Repo | orting | |
| (City) | (: | State | e) (Z | Zip) | | | | | | | | | | | | Person | | | | | |
| | | | Tabl | le I - No | n-Deriv | ative | Sec | uriti | ies Acc | uired, | Dis | posed of | , or Ben | nefici | ally | Owned | | | | | |
| 1. Title of Security (Instr. 3) 2. Transac Date (Month/Da | | | | | | Ex r) if a | ZA. Deemed Execution Date, f any Month/Day/Year) | | 3. Transaction Code (Instr. 8) | | 4. Securities Acquired (A) of Disposed Of (D) (Instr. 3, 4 5) | | | | Beneficially Owned Following | | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | | 7. Nature of Indirect Beneficial Ownership | | |
| | | | | | | | | | | Code | v | Amount | (A) or (D) | Price | • | Reported Transactio (Instr. 3 an | | | | (Instr. 4) | |
| Common Stock 12/22/ | | | | | | | 2011 | | | M | | 25,000 | A | \$1. | 13 | 810,726 | | D | | | |
| Common Stock | | | | | | | | | | | | | | | | 60,000 | | I | | By Spouse As Custodian For Children | |
| Common Stock | | | | | | | | | | | | | | | | 817,500 | | I | | By Sands Associates L.P. | |
| | | | Т | able II - | | | | | | | | osed of, convertib | | | | Owned | | | | | |
| 1. Title of Derivative Security (Instr. 3) | 2. Conversic or Exercis Price of Derivative Security | ion [| 3. Transaction Date (Month/Day/Year) | 3A. Deem Execution if any (Month/D | n Date, | 4. Transaction Code (Instr. 8) | | 5. Number n of | | 6. Date I Expirati (Month/I | on Da | | 7. Title and Amo of Securities Underlying Derivative Secur (Instr. 3 and 4) | | | 8. Price of Derivative Security (Instr. 5) | 9. Numb derivativ Securitie Beneficie Owned Followin Reported Transact (Instr. 4) | ve es ally ng d tion(s) | 10. Ownershi Form: Direct (D) or Indirec (I) (Instr. 4 | Beneficial Ownership t (Instr. 4) | |
| | | | | | | Code | v | (A) | (D) | Date Exercisa | able | Expiration Date | Title | Amou or Numb of Share | oer | | | | | | |
| Subscription Rights (Right to Buy) ⁽¹⁾ | \$1.13 | | 12/22/2011 | | | М | 1 1 1 | | 11/22/2 | 011 | 12/22/2011 | Common Stock | 25,0 | 00 | \$0 C | | D | | | | |

Explanation of Responses:

1. Each subscription right reflects a basic subscription privilege entitling the holder to purchase 0.427175 shares of common stock and an oversubscription privilege entitling the holder to purchase additional shares of common stock under certain circumstances.

/s/ Arthur T. Sands, M.D.,

Ph.D.

** Signature of Reporting Person

12/27/2011

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.