

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

**STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP**

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

|   |   |   |
|---|---|---|
| <b>1. Name and Address of Reporting Person*</b><br><u>ONSI DOUGLAS E</u><br><br>(Last) (First) (Middle)<br><u>C/O LEAP THERAPEUTICS, INC.</u><br><u>47 THORNDIKE STREET SUITE B1-1</u><br><br>(Street)<br><u>CAMBRIDGE MA 02141</u><br><br>(City) (State) (Zip) | <b>2. Issuer Name and Ticker or Trading Symbol</b><br><u>LEAP THERAPEUTICS, INC. [ LPTX ]</u> | <b>5. Relationship of Reporting Person(s) to Issuer</b><br>(Check all applicable)<br><br>Director <input checked="" type="checkbox"/> 10% Owner<br><input checked="" type="checkbox"/> Officer (give title below) Other (specify below)<br><u>CFO, Gen Counsel, Treas, Sec.</u> |
|   | <b>3. Date of Earliest Transaction (Month/Day/Year)</b><br><u>01/23/2017</u>                  |   |
|   | <b>4. If Amendment, Date of Original Filed (Month/Day/Year)</b>                               |   |
|   |   | <b>6. Individual or Joint/Group Filing (Check Applicable Line)</b><br><input checked="" type="checkbox"/> Form filed by One Reporting Person<br>Form filed by More than One Reporting Person  |

**Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned**

| 1. Title of Security (Instr. 3) | 2. Transaction Date (Month/Day/Year) | 2A. Deemed Execution Date, if any (Month/Day/Year) | 3. Transaction Code (Instr. 8) |   | 4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5) |            |       | 5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4) | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Indirect Beneficial Ownership (Instr. 4) |
|---------------------------------|--------------------------------------|--|--------------------------------|---|---|------------|-------|---|--|---|
|                                 |                                      |  | Code                           | V | Amount  | (A) or (D) | Price |   |  |   |

**Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)**

| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deemed Execution Date, if any (Month/Day/Year) | 4. Transaction Code (Instr. 8) |   | 5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) |     | 6. Date Exercisable and Expiration Date (Month/Day/Year) |                 | 7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4) | 8. Price of Derivative Security (Instr. 5) | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4) | 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) |       |
|--|--|--------------------------------------|--|--------------------------------|---|--|-----|--|-----------------|---|--|--|---|--|-------|
|  |  |                                      |  | Code                           | V | (A)  | (D) | Date Exercisable   | Expiration Date |   |  |  |   |  | Title |
| Stock Option (Right to Buy)                | \$9.9  | 01/23/2017                           |  | A                              |   | 330,303  |     | (1)  | 01/22/2027      | Common Stock, \$0.001 par value per share   | 330,303 <sup>(1)</sup>                     | \$0  | 330,303   | D  |       |

**Explanation of Responses:**

1. The Option was granted pursuant to Leap's Amended and Restated 2012 Equity Incentive Plan and shall vest and become exercisable with respect to 33 1/3% of the Option Shares on the one-year anniversary of January 23, 2017, the Vesting Start Date (the "First Vesting Date"), after which it shall vest in a series of 24 equal monthly installments until the Option is fully vested, with the first such monthly installment vesting on the one-month anniversary of the First Vesting Date.

/s/ Douglas E. Onsi 01/23/2017  
 \*\* 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.