

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

**STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP**

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*<br><u>Goldberg Mark Alan</u> |                    |          | 2. Issuer Name and Ticker or Trading Symbol<br><u>IDERA PHARMACEUTICALS, INC. [ IDRA ]</u> |  |  | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable)<br><input checked="" type="checkbox"/> Director 10% Owner<br>Officer (give title below) Other (specify below) |  |  |
| (Last)  | (First)            | (Middle) | 3. Date of Earliest Transaction (Month/Day/Year)<br><u>06/20/2018</u>                      |  |  | 6. Individual or Joint/Group Filing (Check Applicable Line)<br><input checked="" type="checkbox"/> Form filed by One Reporting Person<br>Form filed by More than One Reporting Person |  |  |
| C/O IDERA PHARMACEUTICALS, INC.<br>167 SIDNEY STREET                  |                    |          | 4. If Amendment, Date of Original Filed (Month/Day/Year)                                   |  |  |   |  |  |
| (Street)  | CAMBRIDGE MA 02139 |          |  |  |  |   |  |  |
| (City)  | (State)            | (Zip)    |  |  |  |   |  |  |

**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) |
|--|--|--------------------------------------|--|--------------------------------|--|--|-----------------|---|--|--|---|--|
|  |  |                                      |  |                                |  | Date Exercisable   | Expiration Date |   |  |  |   |  |
| Stock Options <sup>(1)</sup>               | \$1.53   | 06/20/2018                           |  | A                              | 50,000   | 06/20/2019 <sup>(2)</sup>                                | 06/20/2028      | Common Stock  | 50,000                                     | \$1.53   | 50,000  | D  |

**Explanation of Responses:**

- These options were granted pursuant to the Company's director compensation on the date of the Company's 2018 annual meeting of stockholders at an exercise price to the closing price of the Company's common stock on the date of grant.
- These options will vest in full and become immediately exercisable on the first anniversary of the date of grant, subject to continued service as director, and are granted under the Company's 2013 Stock Incentive Plan, as amended.

/s/ Mark Alan Goldberg 06/21/2018

\*\* 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.