

| OMB APPROVAL                                 |           |
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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>Fletcher Robert C.</u><br><br>(Last) (First) (Middle)<br>C/O IDERA PHARMACEUTICALS, INC.<br>505 EAGLEVIEW BLVD., SUITE 212<br><br>(Street)<br>EXTON PA 19341<br><br>(City) (State) (Zip) | 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><br>Director 10% Owner<br>Officer (give title below) Other (specify below)<br>X Sr. VP, Bus. Dev. & Strategy |
|  | 3. Date of Earliest Transaction (Month/Day/Year)<br>01/07/2020                             |   |
| 4. If Amendment, Date of Original Filed (Month/Day/Year)<br>01/10/2020   |  |   |

**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                   |   |  |   |
| Common Stock                    | 01/07/2020                           | 01/08/2020 <sup>(1)(2)</sup>                       | S                              |   | 1,615 <sup>(3)</sup>  | D          | \$1.7804 <sup>(4)</sup> | 16,485 <sup>(5)</sup>   | D  |   |

**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) |   | 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 | Date Exercisable   | Expiration Date |   |  |  |   |  |

**Explanation of Responses:**

- The Form 4 filed on January 10, 2020 did not include the Deemed Execution Date in Column 2A and corresponding footnote disclosure. This amendment to the Form 4 is being filed to include this information for the reported transaction.
- In accordance with terms of the RSU agreement, the "sell to cover" provision is intended to comply with the requirements of Rule 10b5-1(c)(1) under the Exchange Act and be interpreted to comply with the requirements of Rule 10b5-1(c) under the Exchange Act.
- Represents the number of shares of Issuer common stock required to be sold by the Reporting Person to cover tax withholding obligations in connection with the vesting of 4,525 Restricted Stock Units ("RSUs") on January 3, 2020. This sale is mandated by the Issuer's election under its 2013 Stock Incentive Plan to require the satisfaction of tax withholding obligations to be funded by a "sell to cover" transaction and does not represent a discretionary trade by the Reporting Person.
- The reported price in Column 4 is a weighted average sale price. These shares were sold in multiple transactions at prices ranging from \$1.76 to \$1.82 per share. The Reporting Person undertakes to provide to the Issuer, any security holder of the Issuer, or the staff of the Securities and Exchange Commission, upon request, full information regarding the number of shares sold at each separate price within the range set forth in this footnote.
- Of the reported shares, 13,575 shares are represented by unvested RSUs.

/s/ Robert Clayton Fletcher      01/14/2020

\*\* 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.