FORM 4

obligations may continue. See Instruction 1(b).

Check this box if no longer subject to Section 16. Form 4 or Form 5

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* | | | | | | 2. Issuer Name and Ticker or Trading Symbol IDERA PHARMACEUTICALS, INC. [IDRA] | | | | | | | | | (Check all ap | | olicable) ctor | | erson(s) to Issuer 10% Owner | | |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|--------------------------------------------|----------------------------------------------|-------|-------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------|-------------------------------------------------------|----------------------------------------------------------------|---------------|--------------------|---------------------------------------------------------------------------------------------------|-----------------|---------------------|----------------------|------------------------------------|-----------------------|-------------------------------------------------|------------------------------------------|--------------------------------------------------------------------|--|
| (Last) (First) (Middle) C/O IDERA PHARMACEUTICALS, INC. 505 EAGLEVIEW BLVD., SUITE 212 | | | | | 3. Date of Earliest Transaction (Month/Day/Year) 01/02/2019 | | | | | | | | | | | Offic belov | er (give title w) | | Other below) | (specify | |
| (Street) EXTON PA 19341 (City) (State) (Zip) | | | | | 4. If | 4. If Amendment, Date of Original Filed (Month/Day/Year) | | | | | | | | | . Indiv ine) X | | | | | | |
| Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned | | | | | | | | | | | | | | | | | | | | | |
| 1. Title of Security (Instr. 3) 2. Transac Date (Month/Date) | | | | | | ur) I | Execution if any | A. Deemed Recution Date, any Ionth/Day/Year) | | Transaction D | | 4. Securities Acquired (A) Disposed Of (D) (Instr. 3, 4 5) | | | 4 and Secu Bene | | cially I Following | Form: | nership Direct Indirect str. 4) | 7. Nature of Indirect Beneficial Ownership (Instr. 4) | |
| | | | | | | | | | | v | Amount | | (A) or (D) | Price | | Transaction(s) (Instr. 3 and 4) | | | | , | |
| Common Stock 01/02/2 | | | | | | :/2019 | | | | | 2,929(| (1) A | | \$3. | .52 | 52 2,929 | | | 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. Deem Execution if any (Month/Da | Date, | Code (Inst | | | | 6. Date Exercisable and Expiration Date (Month/Day/Year) | | | 7. Title and Amount of Securities Underlying Derivative Security (Instr. and 4) | | | | | derivative Securities | Owner Form: Direct or Indi (I) (Ins | wnership | 11. Nature of Indirect Beneficial Ownership (Instr. 4) | |
| | | | | | Code | v | (A) | (D) | Date Exercisa | | Expiration Date | Title | or Nur of | ount nber res | | | | | | | |

Explanation of Responses:

1. This stock was issued to the reporting person pursuant to his election, under the Issuer's director compensation program, to receive common stock in lieu of cash fees.

/s/ Howard H. Pien

01/03/2019

** 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.