FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

| STATEMENT | OF CHANGES | IN BENEFICIAL | OWNERSHIP |
|------------------|------------|---------------|------------------|

| OMB APPRO | JVAL | | | | |
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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).

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* PARSHALL B LYNNE | | | | | | | | | | | | | | | | | son(s) to Iss 10% O Other (| wner | |
|--|---|--|--|---------------------------|---|-----------|--|---|--|---------|----------------------|---|-------------------------|---|---|---|-----------------------------------|--|---------------------------------------|
| (Last) (First) (Middle) C/O IONIS PHARMACEUTICALS, INC. 2855 GAZELLE COURT | | | | Date 0 /15/2 | | est Trans | action (M | lonth/ | Day/Year) | | below) | | | below) | | | | | |
| (Street) CARLSE | | | 92010 (Zip) | | _ 4. | f Ame | endme | nt, Date c | of Origina | l Filed | (Month/Da | ay/Yea | ur) | Line | Form fi | led by One led by Mor | Repo | y (Check Ap orting Perso n One Repo | n |
| | | Tab | le I - No | n-Deri | vativ | e Se | curit | ies Ac | quired, | Dis | posed o | f, or | Ben | eficiall | y Owned | | | | |
| | | 2. Trans Date (Month/ | /Day/Year) if | | 2A. Deemed Execution Date, if any (Month/Day/Year) | | 3. Transaction Code (Instr. 8) | | 4. Securities Acquired (A) Disposed Of (D) (Instr. 3, 4 | | | Benefici Owned F | es ally 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 Transact (Instr. 3 | tion(s) | | | (Instr. 4) |
| Common | Common Stock | | 01/15 | 01/15/2020 | | 01/1 | 5/2020 | M ⁽¹⁾ | | 15,136 | (1) A | A | \$0 | 68 | ,702 | D | | | |
| Common | Stock | | | 01/15 | 5/2020 | 0 | 01/1 | 5/2020 | F ⁽²⁾ | | 3,905 | 2) | D | \$62.0 | 6 64,797 D | | | | |
| | | ٦ | Гable II - | | | | | | | | osed of, converti | | | | Owned | | | | |
| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deemed Execution D if any (Month/Day/ | Date, Transac Code (Ir | | | of Deri Sec Acq (A) o Disp of (I | umber vative urities uired or oosed O) (Instr. and 5) | 6. Date Exercis Expiration Date (Month/Day/Yea | | е | 7. Title and Am of Securities Underlying Derivative Sect (Instr. 3 and 4) | | s Security | 8. Price of Derivative Security (Instr. 5) | 9. Number derivative Securities Beneficial Owned Following Reported Transactio (Instr. 4) | i (| 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | Beneficial Ownership (Instr. 4) |
| | | | | | Code | v | (A) | (D) | Date Exercisa | | Expiration Date | Title | | Amount or Number of Shares | | | | | |
| Restricted Stock Units | (3) | 01/15/2020 | 01/15/2 | 2020 | M | | | 15,136 | (4) | | (4) | Com | | 15,136 | \$0 | 16,40 | 9 | D | |

Explanation of Responses:

- 1. Acquired pursuant to vesting and release of shares in accordance with Restricted Stock Unit awards.
- 2. Shares withheld to cover the required tax withholding obligations pursuant to the Ionis Pharmaceuticals, Inc. Amended and Restated 2011 Equity Incentive Plan.
- 3. Each Restricted Stock Unit represents a contingent right to receive one share of Ionis common stock, or its equivalent cash value.
- 4. Restricted Stock Units vest in four equal annual installments. Upon vesting, the Restricted Stock Units will be paid out in whole shares of Ionis common stock or cash as may be determined by Ionis.

Remarks:

/s/Patrick R. O'Neil, attorney-

01/17/2020

** Signature of Reporting Person

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.