FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

| Vashington, | D.C. | 20549 |
|--------------|------|-------|
| vasilington, | D.C. | 20040 |

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

| OMB APP | ROVAL | | | | | | |
|--------------------------|-----------|--|--|--|--|--|--|
| OMB Number: | 3235-0287 | | | | | | |
| Estimated average burden | | | | | | | |
| hours per response. | 0.5 | | | | | | |

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

| | | | | | | | | <u> </u> | | | | | | | | | | | | | |
|---|---|--|--|-----------------|---|--|--|--|---|--------|--------------------|--|--|---|---|--|--|-----------|--|--|--|
| 1. Name and Address of Reporting Person* Geary Richard S | | | | | | 2. Issuer Name and Ticker or Trading Symbol IONIS PHARMACEUTICALS INC IONS | | | | | | | | | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director 10% Owner Officer (give title Other (specify | | | | | | |
| (Last) 2855 GA | (Fi | * | (Middle |) | | 3. Date of Earliest Transaction (Month/Day/Year) 12/14/2023 | | | | | | | | | X Officer (give title below) EVP, Chief Development Officer | | | | | | |
| | _ 4.1 | 4. If Amendment, Date of Original Filed (Month/Day/Year) 6. Ir Line | | | | | | | | | | Individual or Joint/Group Filing (Check Applicable ne) | | | | | | | | | |
| (Street) | BAD CA | A : | 92010 | | | | | | | | | | | | | X Form filed by One Reporting Person Form filed by More than One Reporting Person | | | | | |
| (City) (State) (Zip) | | | | | | Rule 10b5-1(c) Transaction Indication | | | | | | | | | | | | | | | |
| | | X | Check this box to indicate that a transaction was made pursuant to a contract, instruction or written plan that is intended to satisfy the affirmative defense conditions of Rule 10b5-1(c). See Instruction 10. | | | | | | | | | | | | | | | | | | |
| | | Tab | le I - I | Non-Deri | vativ | e Sec | urit | ies A | cquire | ed, D | isposed o | of, or B | eneficia | ally C | Owned | ı | | | | | |
| , , | | 2. Transaction Date (Month/Day/Year | | Execution Date, | | 3. Transaction Code (Instr. 8) | | 4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 an | | | Benefi Owned | | es ially Following | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | | 7. Nature of Indirect Beneficial Ownership | | | | | |
| | | | | | | Code | v | Amount (A) or Price | | Price | | Reported Transaction(s) (Instr. 3 and 4) | | | | (Instr. 4) | | | | | |
| Common Stock | | | | 12/14/2 | 023 | | | | M | | 6,571 | Α | \$47.3 | 4 | 79 | 9,532 | | D | | | |
| Common Stock | | | 12/14/2023 | | | | S | | 6,571 | D | \$49.213 | 33(1) | 72 | 72,961 | | D | | | | | |
| Common Stock 12/1 | | | 12/14/2 | 023 |)23 | | M | | 4,042 | A | \$47.34 | | 77 | 77,003 | | D | | | | | |
| Common Stock 12/14/202 | | | | | 023 | | | | S | | 4,042 | D | \$50.18 | 187 ⁽²⁾ 72,961 | | | | D | | | |
| | | Т | able | | | | | | | | sposed of | | | | wned | | | | | | |
| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | if any | | 4. Transaction Code (Instr. 8) | | 5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) | | 6. Date Exer Expiration D (Month/Day/ | | cisable and | 7. Title and Amount of Securities Underlying Derivative Secu (Instr. 3 and 4) | | 8. F Der Sec (Ins | Price of erivative ecurity estr. 5) | 9. Number derivative Securities Beneficiall Owned Following Reported Transactio (Instr. 4) | Ownershi Form: y Direct (D) or Indirec (I) (Instr. 4 | Ownership | 11. Nature of Indirect Beneficial Ownership (Instr. 4) | | |
| | | | | | Code | v | (A) | (D) | Date Exerci | isable | Expiration Date | Title | Amount or Number of Shares | 1 | | | | | | | |
| Non- Qualified Stock Option (right to buy) | \$47.34 | 12/14/2023 | | | M | | | 6,571 | 01/03/2018 | | 01/02/2024 | Common Stock | 6,571 | | \$0.0 | 14,654 | | D | | | |
| Non- Qualified Stock Option (right to | \$47.34 | 12/14/2023 | | | M | | | 4,042 | 01/03 | /2018 | 01/02/2024 | Common Stock | 1 4,042 | | \$0.0 | 10,612 | | D | | | |

Explanation of Responses:

- 1. The price reported in Column 4 is a weighted average price. These shares were sold in multiple transactions at prices ranging from \$48.75 to \$49.75 inclusive. The reporting person undertakes to provide to Ionis Pharmaceuticals, Inc. any security holder of Ionis Pharmaceuticals, Inc. 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 ranges set forth in footnote (1) on this Form 4.
- 2. The price reported in Column 4 is a weighted average price. These shares were sold in multiple transactions at prices ranging from \$50.00 to \$50.50 inclusive. The reporting person undertakes to provide to Ionis Pharmaceuticals, Inc. any security holder of Ionis Pharmaceuticals, Inc. 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 ranges set forth in footnote (2) on this Form 4.

By: Patrick R. O'Neil, attorneyin-fact For: Richard S. Geary

** 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.