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

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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* Cadoret-Manier Onaiza						2. Issuer Name and Ticker or Trading Symbol IONIS PHARMACEUTICALS INC IONS									all applic Directo Officer	cable)	Pers	10% Ow Other (s	/ner
(Last) (First) (Middle) 2855 GAZELLE COURT						3. Date of Earliest Transaction (Month/Day/Year) 01/17/2023								below) below) EVP, Chf GL Pdt Str & Oper Ofc					ofc
(Street)				- 4.1	4. If Amendment, Date of Original Filed (Month/Day/Year)								6. Individual or Joint/Group Filing (Check Applicable ine)						
CARLSBAD CA 92010				_									X	Form filed by One Reporting Person Form filed by More than One Reporting					
(City) (State) (Zip)															Person	l			
Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned																			
1. Title of Security (Instr. 3) 2. Transac Date (Month/Da					Execu	Deemed cution Date, y nth/Day/Year)		3. Transaction Code (Instr. 8)		4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and			Benefic		ies Fo cially (D Following (I)		n: Direct or Indirect nstr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)	
									Code	v	Amount	(A) or (D)	Price		Transac (Instr. 3	ction(s)			msu. 4)
Common Stock 01/17/20				.023	23			M ⁽¹⁾		10,197(1)	A	\$ <mark>0</mark> .	\$0.0		22,286		D		
Common Stock 01/18/2				023	23			S ⁽²⁾		3,748(2)	D	D \$39.5473 ⁽³⁾		18,538			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)	if any	emed ion Date, //Day/Year)	4. Transa Code (8)			vative urities uired or oosed O) (Instr.	6. Date Exe Expiration I (Month/Day		ate	7. Title and Amor of Securities Underlying Derivative Secur (Instr. 3 and 4)		Derivative Security		9. Number derivative Securities Beneficiall Owned Following Reported Transactio (Instr. 4)	ly	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	Beneficial Ownership t (Instr. 4)
					Code	v	(A)	(D)	Date Exerc	cisable	Expiration Date	Title	Amou or Numb of Share	er					
Restricted Stock Unit	\$0.0 ⁽⁴⁾	01/17/2023			M			10,197		(5)	(5)	Common	10,19	97	\$0.0	55,326	5	D	

Explanation of Responses:

- 1. Acquired pursuant to vesting and release of shares in accordance with Restricted Stock Unit awards.
- 2. The sale was made pursuant to an automatic sale to cover the required tax withholding obligations pursuant to the 2011 Equity Incentive Plan Restricted Stock Unit Agreement and Grant Notice.
- 3. The price reported in Column 4 is a weighted average price. These shares were sold in multiple transactions at prices ranging from \$39.25 to \$39.70 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 (3) on this Form 4.
- 4. Each Restricted Stock Unit represents a contingent right to receive one share of Ionis common stock, or its equivalent cash value.
- 5. 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 the Company.

By: Patrick R. O'Neil, attorney-01/19/2023 in-fact For: Onaiza Cadoret-Manier

** 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.