FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

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OMB APPROVAL

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).

Check this box to indicate that a transaction was made pursuant to a contract, instruction or written plan for the purchase or sale of equity securities of the issuer that is intended to satisfy the affirmative defense conditions of Rule 10b5-

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

Name and Address of Reporting Person* O'NEIL PATRICK R.					2. Issuer Name and Ticker or Trading Symbol IONIS PHARMACEUTICALS INC [IONS]								(Check	all app Direc	olicable)	ng Perso	Person(s) to Issuer 10% Owner Other (specify		
(Last) (First) (Middle) 2855 GAZELLE COURT			3. Date of Earliest Transaction (Month/Day/Year) 08/30/2024									V	Officer (give title below) EVP CLO & General Counsel				. ,		
(Street) CARLSBAD CA 92010 (City) (State) (Zip)					4. If Amendment, Date of Original Filed (Month/Day/Year)								6. Individual or Joint/Group Filing (Check Applicable Line) Form filed by One Reporting Person Form filed by More than One Reporting Person						
1. Title of Security (Instr. 3) 2. Transacti Date (Month/Day				ion ZA. Deemed Execution Date, if any (Month/Day/Year)		quired, Disposed of, or Benefi 3. Transaction Code (Instr. 8) 4. Securities Acquired (A) (Disposed Of (D) (Instr. 3, 4) 5)			or 5. Amount of		ount of ties cially d Following	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)		7. Nature of Indirect Beneficial Ownership					
Common Stock 08/30/20							Code	v	Amount 246 ⁽¹⁾	(A) o (D)	FIIC	e 3.641	Transa (Instr.	action(s) 3 and 4)			(Instr. 4)		
Common	Stock	Та			ive Se						osed of, convertib		nefici	ally (8,873 d	1)	
Security or (Instr. 3) Pri	2. Conversion or Exercise Price of Derivative Security	Date (Month/Day/Year)	Executi if any	A. Deemed xecution Date, any Month/Day/Year)		4. Transaction Code (Instr. 8)		rative rities sired r osed)	6. Date Exercisable an Expiration Date (Month/Day/Year)		ate	7. Title and Amount of Securities Underlying Derivative Security (Inst 3 and 4)		8. Price or Derivative Security (Instr. 5)		9. Number derivative Securities Beneficially Owned Following Reported Transaction (Instr. 4)	y Di Or Or (I)	o. wnership orm: rect (D) · Indirect (Instr. 4)	Beneficia Ownershi (Instr. 4)
								Date		Expiration		Amoun or Numbe of							

Explanation of Responses:

1. Reporting shares purchased under the Ionis Pharmaceuticals, Inc. Amended and Restated 2000 Employee Stock Purchase Plan on August 30, 2024. These shares may not be sold until February 28, 2025.

Patrick R. O'Neil

09/04/2024

** 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.