

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

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

OMB APPROVAL	
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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).

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 10b5-1(c). See Instruction 10.

1. Name and Address of Reporting Person* <u>LOSCALZO JOSEPH</u> (Last) (First) (Middle) <u>2855 GAZELLE COURT</u> (Street) <u>CARLSBAD CA 92010</u> (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol <u>IONIS PHARMACEUTICALS INC [IONS]</u>	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director 10% Owner Officer (give title below) Other (specify below)
	3. Date of Earliest Transaction (Month/Day/Year) <u>05/04/2026</u>	
4. If Amendment, Date of Original Filed (Month/Day/Year)		

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)		4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5)			5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price			
Common Stock	05/04/2026		M		10,968	A	\$38.06	47,298	D	
Common Stock	05/04/2026		M		12,000	A	\$40.05	59,298	D	
Common Stock	05/04/2026		M		10,321	A	\$41.08	69,619	D	
Common Stock	05/04/2026		M		16,000	A	\$42.88	85,619	D	
Common Stock	05/04/2026		M		12,000	A	\$60.2	97,619	D	
Common Stock	05/04/2026		M		16,000	A	\$64.8	113,619	D	
Common Stock	05/04/2026		S		59,508 ⁽¹⁾	D	\$74.9024 ⁽²⁾	54,111	D	
Common Stock	05/04/2026		S		17,781 ⁽¹⁾	D	\$75.5826 ⁽³⁾	36,330	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. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)		5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)		6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)	8. Price of Derivative Security (Instr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)	
				Code	V	(A)	(D)	Date Exercisable	Expiration Date						Title
Non-Qualified Stock Option (right to buy)	\$38.06	05/04/2026		M			10,968	07/01/2023	06/30/2032	Common Stock	10,968	\$0.0	0	D	
Non-Qualified Stock Option (right to buy)	\$40.05	05/04/2026		M			12,000	07/01/2022	06/30/2031	Common Stock	12,000	\$0.0	0	D	
Non-Qualified Stock Option (right to buy)	\$41.08	05/04/2026		M			10,321	07/03/2024	07/02/2033	Common Stock	10,321	\$0.0	0	D	
Non-Qualified Stock Option (right to buy)	\$42.88	05/04/2026		M			16,000	07/02/2019	07/01/2028	Common Stock	16,000	\$0.0	0	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. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)		5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)		6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)		8. Price of Derivative Security (Instr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
				Code	V	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares				
Non-Qualified Stock Option (right to buy)	\$60.2	05/04/2026		M			12,000	07/01/2021	06/30/2030	Common Stock	12,000	\$0.0	0	D	
Non-Qualified Stock Option (right to buy)	\$64.8	05/04/2026		M			16,000	07/01/2020	06/30/2029	Common Stock	16,000	\$0.0	0	D	

Explanation of Responses:

- Shares sold pursuant to a Rule 10b5-1 Trading Plan adopted by the reporting person on November 18, 2025.
- The price reported in Column 4 is a weighted average price. These shares were sold in multiple transactions at prices ranging from \$74.49 to \$75.49 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.
- The price reported in Column 4 is a weighted average price. These shares were sold in multiple transactions at prices ranging from \$75.495 to \$75.98 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.

By: Patrick R. O'Neil, attorney- 05/06/2026
in-fact For: Joseph Loscalzo

** 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.