

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

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>Hayden Michael R</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 [</u> <u>IONS]</u> Foreign Trading Symbol		5. Relationship of Reporting Person(s) to Issuer (Check all applicable) ☒ Director 10% Owner Officer (give title below) Other (specify below)	
			3. Date of Earliest Transaction (Month/Day/Year) <u>07/30/2026</u>			
			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	

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	07/30/2026		P		15,000	A	\$53.38 ⁽¹⁾	19,000	I	by Spouse ⁽²⁾
Common Stock	07/31/2026		P		5,000	A	\$51.6 ⁽³⁾	24,000	I	by Spouse ⁽²⁾
Common Stock								54,298	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		Date Exercisable	Expiration Date	Title	Amount or Number of Shares				

Explanation of Responses:

1. The price reported in Column 4 is a weighted average price. These shares were purchase in multiple transactions at prices ranging from \$53.00 to \$53.58 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 purchased at each separate price within the ranges set forth in footnote (1) on this Form 4.

2. These securities are held by Genworks 2 Consulting, Inc. ("Genworks 2"). The Reporting Person's spouse has sole voting and investment power with respect to the shares held by Genworks 2.

3. The price reported in Column 4 is a weighted average price. These shares were purchase in multiple transactions at prices ranging from \$51.45 to \$51.70 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 purchased at each separate price within the ranges set forth in footnote (3) on this Form 4.

By: Patrick R. O'Neil,
attorney-in-fact For: Michael R. Hayden 07/31/2026

** 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.