FORM 4

## UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

OMB APPRO	OVAL						
OMB Number:	3235-0287						
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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).

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*  Hayden Michael R					2. Issuer Name <b>and</b> Ticker or Trading Symbol IONIS PHARMACEUTICALS INC [ IONS								5. Relationship of Reporting Person(s) to Issuer (Check all applicable)					
				]									X	Officer	or (give title		10% Ov Other (s	1
(Last)	(Fi	rst) (	Middle)	-										below)			below)	specify
C/O IONIS PHARMACEUTICALS, INC.					3. Date of Earliest Transaction (Month/Day/Year) 10/15/2018													
2855 GA	ZELLE CO	OURT		10/	10/2													
				4. I	4. If Amendment, Date of Original Filed (Month/Day/Year)								6. Individual or Joint/Group Filing (Check Applicable Line)					
(Street)												Ι,	X	Form 1	filed by One	Rep	orting Perso	n
CARLSE	BAD CA	A 9	92010											Form filed by More than One Reporting Person				
(City)	(SI	tate) (	Zip)															
	Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned																	
1 Title of 9	Security (Incl			Transaction	_	A. Deem		3.		1				5. Amou		6 Ov	vnership	7. Nature
Date					Execution Date,			Transaction Disposed Of (D) (Instr. 3, 4						Securition Benefici	es Forn ially (D) o		n: Direct r Indirect	of Indirect Beneficial Ownership
					(MOIIII/Day/Teal		·   ·	v	Amount	(A) (	or Pric	е	Reporte Transac	d tion(s)	(1) (1)		(Instr. 4)	
					Code V Amount (A) or (D)				(Instr. 3 and 4)									
	Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)																	
1. Title of Derivative Conversion Date 3A. Deemed Execution Date, Tr.			e, Transa Code (	5. Number 6			6. Date Exercisable and Expiration Date (Month/Day/Year)			7. Title and Amount of Securities Underlying Derivative Securit (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		xpiration ate	Title	Amour or Number of Shares	er					
Restricted Stock Units	(1)	10/15/2018	10/15/2018	A		7,110		(2)		(2)	Common Stock	7,110		\$0	7,110		D	

## **Explanation of Responses:**

- 1. Each Restricted Stock Unit represents a contingent right to receive one share of Ionis common stock, or its equivalent cash value.
- 2. Grant of October 15, 2018 to reporting person of Restricted Stock Unit Award under the Amended and Restated Ionis Pharmaceuticals, Inc. 2002 Non-Employee Directors' Stock Option Plan. Restricted Stock Units vest in four equal annual installments, the first installment vesting on October 15, 2019. 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. The RSU shall be fully vested on October 15, 2022. The RSU is vested as to 0 shares on October 15, 2018.

## Remarks:

/s/Patrick R. O'Neil, attorney-

in-fact

\*\* Signature of Reporting Person

Date

10/15/2018

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.