

OMB APPROVAL	
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STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

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* <u>HOUGEN ELIZABETH L</u> (Last) (First) (Middle) <u>C/O IONIS PHARMACEUTICALS, INC.</u> <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) Director 10% Owner <input checked="" type="checkbox"/> Officer (give title below) Other (specify below) <u>SVP, Finance & CFO</u>
	3. Date of Earliest Transaction (Month/Day/Year) <u>12/20/2019</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	12/20/2019	12/20/2019	M ⁽¹⁾		7,196 ⁽¹⁾	A	\$10.82	27,251	D	
Common Stock	12/20/2019	12/20/2019	F ⁽²⁾		4,215 ⁽²⁾	D	\$61.52	23,036	D	
Common Stock	12/20/2019	12/20/2019	M ⁽¹⁾		3,438 ⁽¹⁾	A	\$10.82	26,474	D	
Common Stock	12/20/2019	12/20/2019	F ⁽²⁾		2,014 ⁽²⁾	D	\$61.52	24,460	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
Employee Stock Option (right to buy)	\$10.82	12/20/2019	12/20/2019	M		7,196		01/02/2017 ⁽³⁾	01/01/2020	Common Stock	7,196	\$0	0	D	
Employee Stock Option (right to buy)	\$10.82	12/20/2019	12/20/2019	M		3,438		01/02/2017 ⁽³⁾	01/01/2020	Common Stock	3,438	\$0	0	D	

Explanation of Responses:

- Acquired as a result of exercising a stock option in accordance with the Amendment to Outstanding Options Agreement dated November 9, 2015 between the reporting person and issuer ("Agreement"). The purchase and partial sale reported on this Form 4 was effective pursuant to the Agreement.
- Shares sold to cover the option cost and tax withholding obligations pursuant to the Agreement.
- Represents the date on which the options are fully exercisable pursuant to the vesting schedule of the grant.

Remarks:

/s/Patrick R. O'Neil, attorney-in-fact 12/20/2019

** 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.