Instruction 1(b)

FORM 4

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

TE	MEN	IT O	FC	HAI

STA NGES 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 APPRO	VAL							
OMB Number:	3235-0287							
Estimated average burden								
hours per response:	0.5							

1. Name and Address of Reporting Person [*] WENDER JOSEPH H			2. Issuer Name and Ticker or Trading Symbol <u>IONIS PHARMACEUTICALS INC</u> [IONS]		ionship of Reporting Person(all applicable) Director	s) to Issuer 10% Owner
(Last) (First) (Middle) C/O IONIS PHARMACEUTICALS, INC. 2855 GAZELLE COURT		,	3. Date of Earliest Transaction (Month/Day/Year) 07/01/2016		Officer (give title below)	Other (specify below)
(Street) CARLSBAD CA 92010		92010 (Zip)	4. If Amendment, Date of Original Filed (Month/Day/Year)	6. Indivi Line) X	dual or Joint/Group Filing (Cl Form filed by One Reportir Form filed by More than Or	ng Person

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

Table 1 - Non-Derivative Securities Acquired, Disposed 01, 01 Benencially 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)					5. Amount of Securities Beneficially Owned Following Reported	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership	
			Code	v	Amount	(A) or (D)	Price	Transaction(s) (Instr. 3 and 4)		(Instr. 4)	
Common Stock	07/01/2016	07/01/2016	M ⁽¹⁾		667 ⁽¹⁾	A	\$0	32,332	I	By Joseph H Wender Trust	
Common Stock	07/01/2016	07/01/2016	M ⁽²⁾		667 ⁽²⁾	A	\$0	32,999	I	By Joseph H Wender Trust	
Common Stock	07/01/2016	07/01/2016	M ⁽³⁾		469 ⁽³⁾	A	\$0	33,468	I	By Joseph H Wender Trust	
Common Stock	07/02/2016	07/02/2016	M ⁽⁴⁾		312 ⁽⁴⁾	A	\$0	33,780	I	By Joseph H Wender Trust	

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities) 5. Number of 6. Date Exercisable and 1. Title of 3. Transaction 3A. Deemed 7. Title and Amount 8. Price of 9. Number of 10. 11. Nature Derivative Security Conversion Date (Month/Day/Year) Execution Date, Transaction Code (Instr. Derivative Expiration Date (Month/Day/Year) Securities Derivative derivative Ownership of Indirect of Securitie Underlying or Exercise if anv Securities Security Securities Form: Beneficial Price of Derivative Security Acquired (A) or Disposed of (D) (Instr. 3, Derivative Security (Instr. 3 and 4) Beneficially Owned Following Direct (D) or Indirect (I) (Instr. 4) (Month/Day/Year) Ownership (Instr. 4) (Instr. 3) 8) (Instr. 5) Reported Transaction(s) (Instr. 4) 4 and 5) Amount Number Date Expiration of Shares v (A) Code (D) Exercisable Date Title Restricted Commor (5) 07/01/2016 07/01/2016 Μ 1,803 (6) (6) 1,803 \$<mark>0</mark> 3,801 D Stock Restricted

Stock Units	(5)	07/02/2016	07/02/2016	М		312	(6)	(6)	Stock	312	\$ <mark>0</mark>	0	D	
Restricted Stock Units	(5)	07/01/2016	06/24/2016	A	2,667		(7)	(7)	Common Stock	2,667	\$0	2,667	D	
Director Stock Option (right to buy)	\$24.42	07/01/2016	07/01/2016	A	16,000		07/01/2017 ⁽⁸⁾	06/30/2026 ⁽⁸⁾	Common Stock	16,000	\$ <mark>0</mark>	16,000	D	

Explanation of Responses:

Stock

Units

1. Acquired pursuant to vesting and release of shares pursuant to a Restricted Stock Unit award granted on July 1, 2014.

2. Acquired pursuant to vesting and release of shares pursuant to a Restricted Stock Unit award granted on July 1, 2015.

3. Acquired pursuant to vesting and release of shares pursuant to a Restricted Stock Unit award granted on July 1, 2013.

4. Acquired pursuant to vesting and release of shares pursuant to a Restricted Stock Unit award granted on July 2, 2012.

5. Each Restricted Stock Unit represents a contingent right to receive one share of Ionis common stock, or its equivalent cash value.

6. Restricted Stock Units vest in equal annual installments. 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.

7. Grant of July 1, 2016 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 July 1, 2017. 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 July 1, 2020. The RSU is vested as to 0 shares on July 1, 2016.

8. Grant of July 1, 2016 to reporting person of stock options under the Amended and Restated Ionis Pharmaceuticals, Inc. 2002 Non-Employee Directors' Stock Option Plan. The option vests and becomes exercisable in four equal annual installments, the first installment vesting on July 1, 2017. The option shall be fully vested and exercisable on July 1, 2020. The option is exercisable as to 0 shares on July 1, 2016.

Remarks:

<u>/s/B. Lynne Parshall, attorney-</u> <u>in-fact</u> 07/06/2016

** 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.