SEC For	m 4																
FORM 4 UNITE			UNITED	D STATES SECURITIES AND EXCHANGE COMM Washington, D.C. 20549										ON OMB APPROVAL			/AL
Section 16. Form 4 or Form 5 obligations may continue. See						NT OF CHANGES IN BENEFICIAL OWNE d pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940								SHIP OMB Number: Estimated aver hours per resp			3235-0287 0.5
1. Name and Address of Reporting Person [*] HERMAN JOAN E					2. Issue	r Name a	nd Ti	cker or Tradin IACEUTI	g Syn	mbol			able)	Perso	10% Ow	ner	
(Last) 2855 GA	(Last) (First) (Middle) 2855 GAZELLE COURT				3. Date of Earliest Transaction (Month/Day/Year) Officer 07/01/2021 below)											Other (sp below)	pecify
(Street) CARLSBAD CA (City) (State)		92010 (Zip)		4. If Am	Line) X Fo							Form file	or Joint/Group Filing (Check Applicable n filed by One Reporting Person n filed by More than One Reporting son				
Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned																	
1. Title of Security (Instr. 3) Date (Month/D					2A. Deer Execution if any (Month/I	on Dat	Code (In	ion	4. Securities Acquired (A) Disposed Of (D) (Instr. 3, 4			Beneficial Owned Fo	Form Form (D) or Following (I) (In		Direct Indirect Estr. 4)	7. Nature of ndirect Beneficial Dwnership	
							Code \	/	Amount	(A) or (D)	Price	Reported Transactic (Instr. 3 ar			(1	nstr. 4)	
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 Dat if any (Month/Day/Ye	Cod	nsaction le (Instr.	5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)		6. Date Exerc Expiration Da (Month/Day/Y	te	e and	7. Title an of Securiti Underlyin Derivative (Instr. 3 ar	es 9 Security	Derivative Security	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)
				Cod	le V	(A)	(D)	Date Exercisable	Exp Dat	piration te	Title	Amount or Number of Shares					
Non- Qualified Stock Option (right to buy)	\$40.05	07/01/2021	07/01/2021	. А		12,000		07/01/2022 ⁽¹⁾	06/3	'30/2031 ⁽¹⁾	Common Stock	12,000	\$0.0	12,000)	D	
Restricted Stock Unit	\$0.0 ⁽²⁾	07/01/2021	07/01/2021	A		5,333		(3)		(3)	Common Stock	5,333	\$0.0	23,108	3	D	

Explanation of Responses:

1. Grant of July 1, 2021 to reporting person of stock options under the Amended and Restated Ionis Pharmaceuticals, Inc. 2002 Non-Employee Directors' Stock Option Plan. 100% of the shares subject to the option vest and become exercisable on either the first anniversary of the date of grant or the next regularly scheduled annual meeting of stockholders of the Company, whichever occurs earlier. The option is exercisable to 0 shares on July 1, 2021.

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

3. Grant of July 1, 2021 to reporting person of Restricted Stock Unit award under the Amended and Restated Ionis Pharmaceuticals, Inc. 2002 Non-Employee Directors' Stock Option Plan. These Restricted Stock Units vest 100% on either the first anniversary of the date of grant or the next regularly scheduled annual meeting of stockholders of the Company, whichever occurs earlier, and will be delivered to the reporting person on the July 15th following the vesting date. The Restricted Stock Unit is vested as to 0 shares on July 1, 2021.

By: Patrick R. O'Neil, attorneyin-fact For: Joan E. Herman 07/06/2021

** 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.