SEC Forn	n 4																		
	UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549														OMB APPROVAL				
Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).				ATEMENT OF CHANGES IN BENEFICIAL OWNER 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 Number: Estimated average hours per respon			erage burden	3235-0287 0.5	
transaction contract, the purch of the iss the affirm	is box to indica on was made p instruction or v nase or sale of suer that is inter native defense o5-1(c). See Ins	ursuant to a vritten plan for equity securities ided to satisfy conditions of			0) or the fi	ivesurie			1340							
1. Name and Address of Reporting Person [*] Birchler Brian									r or Trading Symbol <u>CEUTICALS INC</u> [IONS				(Chec	ationship of k all applica Director	ble)	g Perso	/ner		
(Last) 2855 GAZ	(Last) (First) (Mic 2855 GAZELLE COURT					3. Date of Earliest Transaction (Month/Day/Year)							below)	Officer (give title Other (specify below) below) EVP, Corp and Development Ops					
(Street) CARLSBAD CA 92010					4. lf	Line)									ed by One	t/Group Filing (Check Applicable I by One Reporting Person I by More than One Reporting Person			
(City)	(Sta		(Zip)																
		Та	ble I - No	n-Deriv	ativ	ve Se	ecuritie	es Acq	uired,	Disp	osed of,	or Bene	ficially	Owned					
D.				Date	2. Transaction Date (Month/Day/Year)		2A. Deemed Execution Date, if any (Month/Day/Year		3. Transaction Code (Instr. 8)		4. Securities Acquired (A) of Disposed Of (D) (Instr. 3, 4		A) or 3, 4 and 5)	5. Amount Securities Beneficial Owned Fo Reported	y Form: (D) or		Direct I Indirect I str. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)	
									Code	v	Amount	(A) or (D)	Price	Transaction(s) (Instr. 3 and 4)					
Common Stock 01/1:					5/2025				M ⁽¹⁾		14,283(1)	Α	\$0.0	60,4	,451 D		D		
Common Stock 01					/202	.5			S ⁽²⁾		5,400(2)	D	\$32.7	\$32.7 55,05		51 D			
											sed of, or onvertible			wned					
1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution D if any (Month/Day/	ate, 4. Co	ransaction ode (Instr.		5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)		6. Date Exerci Expiration Da (Month/Day/Ye		sable and te	7. Title and Amoun of Securities Underlying Derivative Security (Instr. 3 and 4)		8. Price of Derivative Security (Instr. 5)	9. Numb derivativ Securitia Benefici Owned Followin Reported Transact	ve es ially ng d	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)	
				Co	ode	v	(A)	(D)	Date Exercis	sable	Expiration Date	Title	Amount or Number of Shares		(Instr. 4)				
Performance Restricted Stock Units ⁽³⁾	\$0.0	01/15/2025			A		22,000		01/15/2	2028 ⁽⁴⁾	(4)	Common Stock	22,000	\$0.0	53,3	38	D		
Restricted Stock Unit ⁽⁵⁾	\$0.0 ⁽⁶⁾	01/15/2025			A		33,000		01/15/2	2026 ⁽⁷⁾	(7)	Common Stock	33,000	\$0.0	77,3	73	D		
Restricted Stock Unit	\$0.0 ⁽⁶⁾	01/15/2025		I	м			14,283	01/15/2	2025 ⁽⁷⁾	(7)	Common	14,283	\$0.0	63,0	90	D		

Explanation of Responses:

Stock Unit

1. Acquired pursuant to vesting and release of shares in accordance with Restricted Stock Unit awards.

2. The sale was made pursuant to an automatic sale to cover the required tax withholding obligations pursuant to the 2011 Equity Incentive Plan Restricted Stock Unit Agreement and Grant Notice.

3. Grant to reporting person of Performance Restricted Stock Units (PRSUs) under the Ionis Pharmaceuticals, Inc. Amended and Restated 2011 Equity Incentive Plan.

4. The PRSUs may vest at the end of the three-year performance period following the date of grant based on the Issuer's relative total shareholder return as compared to a peer group of companies. The number of PRSUs reported represents the maximum that may be earned, which is 200% of the target number. No number of PRSUs is guaranteed to vest and the actual number of PRSUs that will vest at the end of the performance period may be anywhere from zero to the amount stated.

5. Grant to reporting person of Restricted Stock Units under the Ionis Pharmaceuticals, Inc. Amended and Restated 2011 Equity Incentive Plan.

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

7. Restricted Stock Units vest in four 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.

By: Patrick R. O'Neil, attorney-01/17/2025 in-fact For: Brian Birchler ** Signature of Reporting Person Date

Stock

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.