FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

STATEMENT	OF CHANGES	IN BENEFICIAL	OWNERSHIP
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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* HOUGEN ELIZABETH L									er or Trad ACEUT	-	Symbol ALS IN	S] (Che	ck all applic Directo	,		on(s) to Issu 10% Ov Other (s	/ner	
	,	IACEUTICALS	(Middle) , INC.			3. Date of Earliest Transaction (Month/Day/Year) 01/01/2018								below)			below)	
(Street) CARLSBAD CA 92010 (City) (State) (Zip)				4.1	4. If Amendment, Date of Original Filed (Month/Day/Year)								Individual or Joint/Group Filing (Check Applicable Line) X Form filed by One Reporting Person Form filed by More than One Reporting Person					
		Tal	ole I - Nor	n-Deri	ivativ	e Se	curitie	s Ac	guired,	Dis	posed o	f, or Ber	neficially	/ Owned				
1. Title of Security (Instr. 3) 2. Transac Date (Month/Date)			saction	2A. Deemed Execution Date,		3. Transac	4. Securities Acquired (A) Disposed Of (D) (Instr. 3, 4		d (A) or	5. Amou Securitie Beneficia Owned F	es For ally (D) Following (I) (Form (D) or	Ownership rm: Direct or Indirect (Instr. 4)	7. Nature of Indirect Beneficial Ownership				
						Code	v	Amount	(A) or (D)	Price	Reported Transact (Instr. 3 a	ion(s)			(Instr. 4)			
Common Stock 01/01/.)1/201	2018 01/01/2018		J ⁽¹⁾	V	100(1)) A \$42.		5 10,492			D				
			Table II -								osed of, convertib			Owned				
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)	Date,	4. Transaction Code (Instr. 8)		of		6. Date Exercisable Expiration Date (Month/Day/Year)			nd 7. Title and Ar of Securities Underlying Derivative Sec (Instr. 3 and 4)		8. Price of Derivative Security (Instr. 5)	9. Number derivative Securities Beneficial Owned Following Reported Transactio (Instr. 4)	Owners Form: Direct (or Indir (I) (Inst	Ownership	Beneficial Ownership ct (Instr. 4)
					Code	v	(A)		Date Exercisab	le	Expiration Date	Title	Amount or Number of Shares					
Employee Stock Option (right to buy)	\$49.25	01/02/2018	01/02/20	18	A		54,619		01/02/2019	9(2)	01/01/2025	Common Stock	54,619	\$0	54,61	9	D	

Explanation of Responses:

- 1. Reporting 100 shares acquired under the Ionis Pharmaceuticals, Inc. Amended and Restated 2000 Employee Stock Purchase Plan on January 1, 2018. These 100 shares may not be sold until July 2, 2018.
- 2. Grant of 1/2/2018 to reporting person of stock options under the Ionis Pharmaceuticals, Inc. 2011 Equity Incentive Plan. 25% of the shares subject to the option vest and become exercisable on 1/2/2019. Thereafter, the remaining shares subject to the option vest and become exercisable in 36 equal monthly installments, at the rate of 13,655 shares per year. Following this transaction, the option was exercisable as to 0 on 1/2/2018.

Remarks:

/s/B. Lynne Parshall, attorney-

01/02/2018

<u>in-fact</u>

** 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.