FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

OMB APPROVAL

OMB Number: 3235-0287 Estimated average burden hours per response: 0.5

5. Relationship of Reporting Person(s) to Issuer

Check this box if no longer subject to
Section 16. Form 4 or Form 5
obligations may continue. See
Instruction 1(h)

1. Name and Address of Reporting Person*

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

2. Issuer Name **and** Ticker or Trading Symbol

CROO		ISIS PHARMACEUTICALS INC [ISIS]									Directo		10% Ow		ner				
	(F S PHARMA AZELLE CO		3. Date of Earliest Transaction (Month/Day/Year) 10/21/2015									below)	(give title Chairman	and (Other (s below) CEO	specify			
(Street)	BAD C	– 4. I	4. If Amendment, Date of Original Filed (Month/Day/Year) 6. Individual or Joint/Group Filing (Check Applicable Line) X Form filed by One Reporting Person Form filed by More than One Reporting											n					
(City)	(S	itate)	(Zip)												Person	l			
		Tal	ole I - N	lon-Deri	vativ	e Sec	curit	ies Ac	quire	d, Di	isposed o	f, or Be	nefici	ally (Owned				
1. Title of	2. Transaction Date (Month/Day/Ye		Execution Date,		n Date,	3. Transa Code (8)		4. Securities Acquired (A) o Disposed Of (D) (Instr. 3, 4 a			5)	5. Amount of Securities Beneficially Owned Following Reported	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	Direct Indirect tr. 4)	7. Nature of Indirect Beneficial Ownership				
									Code	v	Amount	(A) or (D)	Price		Transac (Instr. 3	tion(s)			(Instr. 4)
Common	Stock			10/21/2	2015	10)/21/	2015	M ⁽¹⁾		15,000(1)	A	\$11.	27	29	,642		D	
Common	Stock			10/21/2	2015	10)/21/	2015	S ⁽¹⁾		15,000(1)	D	\$43	(2)	14	,642		D	
Common	Stock			10/21/2	10/21/2015			M ⁽³⁾		1,000(3)	A	\$11.27		2,	2,297		I	By wife	
Common	10/21/2	10/21/2015			10/21/2015			1,000(3)	D	\$43		1,	1,297		I	By wife			
Common	10/21/2	10/21/2015			M ⁽³⁾		500 ⁽³⁾	A	\$9.22		1,	1,797		I	By wife				
Common	Stock	10/21/2015		10/21/2015		2015	S ⁽³⁾		500 ⁽³⁾	D	\$43		1,	,297		I .	By wife		
Common	Stock	10/23/2015		10/23/2015		2015	M ⁽¹⁾		4,163(1)	A	\$11.27		18	,805		D			
Common	Stock	10/23/2	10/23/2015		10/23/2015				4,163(1)	D	\$43.9		14	14,642		D			
Common	Stock	10/23/2015		10/23/2015			M ⁽¹⁾		15,837(1)	A	\$10.29		30	30,479		D			
Common	Stock	10/23/2015		10/23/2015			S ⁽¹⁾		15,837(1)	D \$44.17		75 ⁽⁴⁾	14,642			D			
Common	Stock			10/23/2015		10/23/2015			M ⁽¹⁾		5,000(1)	A	\$10.29		19	19,642		D	
Common	Stock			10/23/2	10/23/2015			S ⁽¹⁾		5,000(1)	D	\$45.3		14	14,642		D		
Common Stock 10/23/						10/23/2015			M ⁽³⁾		2,000(3)	A	\$9.22		3,	297		I	By wife
Common Stock 10/23						10/23/2015			S ⁽³⁾		2,000(3)	D	\$44.175(4)		1,	297		I	By wife
Common Stock 10/23/						10	10/23/2015				500 ⁽³⁾	A	\$9.22		1,797			I .	By wife
Common Stock 10/2						10	10/23/2015				500(3)	D	\$45.3		1,297			I	By wife
Common	Stock														725	5,391		I	By Trust
			Table I								posed of, convertil				wned				
1. Title of Derivative Security (Instr. 3)	Derivative Conversion Date Execution Security or Exercise (Month/Day/Year) if any		med 4.				6. Date Exerc Expiration Da (Month/Day/Y		ate	7. Title an of Securit Underlyin Derivative (Instr. 3 a	ties Ig e Securit	De Se	Price of erivative ecurity 1str. 5)	9. Number derivative Securities Beneficiall Owned Following Reported Transactio (Instr. 4)	ly G	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)		
Emplemen					Code	V	(A)	(D)	Date Exerci	sable	Expiration Date	Title	Amour or Number of Shares	er					
Employee Stock Option (right to buy)	on \$11.27 10/21/2015 10/2		1/2015	5 M			15,000	01/04/	2014	01/03/2017	Common Stock	15,00	00 \$0		4,163		D		
Employee Stock Option \$11.27 10/21/2015 10/2 (right to			10/2	1/2015	M			1,000	01/04/	2014	01/03/2017	Common Stock	1,000		\$0	0		I	By wife

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.)		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 an of Securit Underlyin Derivative (Instr. 3 ar	ies g Security	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	Amount or Number of Shares				
Employee Stock Option (right to buy)	\$9.22	10/21/2015	10/21/2015	M			500	07/19/2014	07/18/2017	Common Stock	500	\$0	4,500	I	By wife
Employee Stock Option (right to buy)	\$11.27	10/23/2015	10/23/2015	М			4,163	01/04/2014	01/03/2017	Common Stock	4,163	\$0	0	D	
Employee Stock Option (right to buy)	\$10.29	10/23/2015	10/23/2015	М			20,837	01/03/2015	01/02/2018	Common Stock	20,837	\$0	101,259	D	
Employee Stock Option (right to buy)	\$9.22	10/23/2015	10/23/2015	М			2,500	07/19/2014	07/18/2017	Common Stock	2,500	\$0	2,000	I	By wife

Explanation of Responses:

- 1. Acquired as a result of exercising a stock option pursuant to Rule 10b5-1 Trading Plan. The purchase and sale reported on this Form 4 was effective pursuant to Rule 10b5-1 Trading Plan adopted by the reporting person on 9/21/2015.
- 2. The price reported in Column 4 is a weighted average price. These shares were sold in multiple transactions at prices ranging from \$42.60 to \$43.40, inclusive. The reporting person undertakes to provide to Isis Pharmaceuticals, Inc., any security holder of Isis Pharmaceuticals, Inc. or the staff of the Securities and Exchange Commission, upon request, full information regarding the number of shares sold at each separate price within the ranges set forth in footnote (2) on this Form 4.
- 3. Acquired as a result of exercising a stock option pursuant to Rule 10b5-1 Trading Plan. The purchase and sale reported on this Form 4 was effective pursuant to Rule 10b5-1 Trading Plan adopted by the reporting person's wife on 9/21/2015.
- 4. The price reported in Column 4 is a weighted average price. These shares were sold in multiple transactions at prices ranging from \$43.90 to \$44.70, inclusive. The reporting person undertakes to provide to Isis Pharmaceuticals, Inc., any security holder of Isis Pharmaceuticals, Inc. or the staff of the Securities and Exchange Commission, upon request, full information regarding the number of shares sold at each separate price within the ranges set forth in footnote (4) on this Form 4.

Remarks:

/s/B. Lynne Parshall, attorney-

in-fact

** Signature of Reporting Person Da

Date

10/23/2015

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.