## FORM 4

## **UNITED STATES SECURITIES AND EXCHANGE COMMISSION**

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

viasimigion, D.O. 2004

	OMB APPE	ROVAL					
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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*  BERTHELSEN SPENCER R																5. Relationship of Reporting Person(s) to Issuer (Check all applicable)  X Director 10% Owner					
(Last) (First) (Middle) C/O ISIS PHARMACEUTICALS, INC. 2855 GAZELLE COURT						//01/2				`		ay/Year) (Month/Day		Officer below)	(give title	Other (below)					
(Street) CARLSI (City)		A tate)	92010 (Zip)		4.	II AIII	enament,	Date	oi Oi	nginai F	-lied (	мопшидау	y/ Yea	ar)	Line	) <mark>X</mark> Form fi	ed by One led by Mor	Repo	rting Persor	1	
1 Tido of 6	Caarreiter (Inca		ble I - Nor			_			·		Disp		_			_		6.00	manahin I	7 Natura of	
1. Title of Security (Instr. 3)			2. Transaction Date (Month/Day/Year			2A. Deemed Execution Date ar) if any (Month/Day/Yea		Code (Ins					D) (Instr	. 3, 4 and	5. Amour Securitie Beneficia Owned F	s lly ollowing	Form:		7. Nature of Indirect Beneficial Ownership		
								-	Code	v	Amount	Amount (A		Price	Reported Transaction(s) (Instr. 3 and 4)				(Instr. 4)		
Common	Common Stock					07/01/2014		07/01/2014		M <sup>(1)</sup>		469		A	\$0	50,	082		D		
Common	Stock			07/0	2/201	14	07/02	/2014	1	M <sup>(2)</sup>		313	Ì	A	\$0	50,	50,395 D				
Common	mon Stock														70				By Daughter		
			Table II -									sed of, onvertib				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 I if any (Month/Day	ate, T	4. Transaction Code (Instr. 8)		5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)		Exp	Date Exe Diration Onth/Day	Date	ble and	7. Title and Ar of Securities Underlying Derivative Sec (Instr. 3 and 4)		es Security	8. Price of Derivative Security (Instr. 5)	9. Numbe derivative Securities Beneficia Owned Following Reported Transacti (Instr. 4)	e s ally g	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	Beneficial Ownership (Instr. 4)	
					Code	v	(A)	(D)		Date Exercisable		Expiration Date	Titl	e	Amount or Number of Shares						
Restricted Stock Units	(3)	07/01/2014	07/01/20	14	М				(4)		(4)		Common Stock 469		\$0	1,406		D			
Restricted Stock Units	(3)	07/02/2014	07/02/20	14	М			313		(5)		(5)		mmon tock	313	\$0	624		D		
Restricted Stock Units	(3)	07/01/2014	07/01/20	14	A		2,667			(6)		(6)		mmon tock	2,667	\$0	2,667	,	D		

## Explanation of Responses:

\$35.53

07/01/2014

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

07/01/2014

- 2. Acquired pursuant to vesting and release of shares pursuant to a Restricted Stock Unit award granted on July 2, 2012.
- 3. Each Restricted Stock Unit represents a contingent right to receive one share of Isis common stock, or its equivalent cash value.

Α

4. Restricted Stock Unit Award granted on July 1, 2013. Restricted Stock Units vest in equal annual installments, the first installment vesting on July 1, 2014. Upon vesting, the restricted stock units will be paid out in whole shares of Is is common stock or cash as may be determined by the Company. The RSU shall be fully vested on July 1, 2017.

07/01/2015<sup>(7)</sup>

06/30/2024

16,000

- 5. Restricted Stock Unit Award granted on July 2, 2012. Restricted Stock Units vest in equal annual installments, the first installment vesting on July 2, 2013. Upon vesting, the restricted stock units will be paid out in whole shares of Isis common stock or cash as may be determined by the Company. The RSU shall be fully vested on July 2, 2016.
- 6. Grant of July 1, 2014 to reporting person of Restricted Stock Unit Award under the Amended and Restated Isis Pharmacueticals, Inc. 2002 Non-Employee Directors' Stock Option Plan. Restricted Stock Units vest in four equal annual installments, the first installment vesting on July 1, 2015. Upon vesting, the restricted stock units will be paid out in whole shares of Isis common stock or cash as may be determined by the Company. The RSU shall be fully vested on July 1, 2018. The RSU is vested as to 0 shares on July 1, 2014.
- 7. Grant of July 1, 2014 to reporting person of stock options under the Amended and Restated Isis 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, 2015. The option shall be fully vested and exercisable on July 1, 2018. The option is exercisable as to 0 shares on July 1, 2014.

## Remarks:

Director Stock

Option

(right to buy)

/s/B. Lynne Parshall, attorney-

16,000

Commor

Stock

\$0

16,000

D

in-fact

07/02/2014

\*\* 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.

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