UNITED STATES SECURITIES AND EXCHANGE COMMISSION

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

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

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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).

FORM 4

	s may continue. See Instruction 1(b).				6(a) of the Securities ne Investment Comp	Exchange Act of 193 any Act of 1940		hours p	r response:	0.5	
1. Name and Address o <u>PARSHALL B</u>				and Ticker or Tradi	ng Symbol CALS INC [IS	IS]		5. Relationship of Reporting Person(s) to Issuer (Check all applicable) X Director 10% Owner X Officer (give title below) Other (spec			
(Last) C/O ISIS PHARMA 2855 GAZELLE CO	3. Date of Earlie: 01/01/2015	st Transaction (Mo	nth/Day/Year)			COO & Secretary					
(Street) CARLSBAD (City)	4. If Amendment	, Date of Original F	iled (Month/Day/Yea	u)	6. Individ X	6. Individual or Joint/Group Filing (Check Applicable Line) X Form filed by One Reporting Person Form filed by More than One Reporting Person					
		Table I	Non-Derivativ	ve Securities /	Acquired, Disp	osed of, or Bene	eficially Ov	ned			
1. Title of Security (Ins	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)	4. Securities Acquired (A) or Disposed Of (D 3, 4 and 5)			5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)		

s⁽²⁾ 01/02/2015 01/02/2015 11 200(2) D \$62 115 Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned

J⁽¹⁾

M⁽²⁾

v

111

11,200(2)

01/01/2015

01/02/2015

(e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 3)	Conversion	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)		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 and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)		Security (Instr. 5)	derivative Securities	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		Reported Transaction(s) (Instr. 4)		
Employee Stock Option (right to buy)	\$61.57	01/02/2015	01/02/2015	Α		132,458		01/02/2016 ⁽³⁾	01/01/2022	Common Stock	132,458	\$0	132,458	D	
Employee Stock Option (right to buy)	\$14.69	01/02/2015	01/02/2015	М			11,200	01/02/2014(4)	01/29/2020	Common Stock	11,200	\$0	48,570	D	

Explanation of Responses:

Common Stock

Common Stock

Common Stock

01/01/2015

01/02/2015

1. Reporting 111 shares acquired under the Isis Pharmaceuticals, Inc. Amended and Restated 2000 Employee Stock Purchase Plan on January 1, 2015. These 111 shares may not be sold until July 2, 2015. 2. Acquired as a result of exercising a stock option pursuant to a Rule 1005-1 Trading Plan. The purchase and sale reported on this Form 4 was effective pursuant to a Rule 1005-1 Trading Plan adopted by the reporting person on 7/29/2014. 3. Grant of 1/2/2015 to reporting person of stock options under the Isis Pharmacueticals, Inc. 2011 Equity Incentive Plan. 25% of the shares subject to the option vest and become exercisable on 1/2/2016. Thereafter, the remaining shares subject to the option vest and become exercisable in 36 equal monthly installments, at the rate of 33,115 shares per years.

4. Grant of 1/30/2013 to reporting person of points under the Isis Pharmacueticals, Inc. 1989 Stock Option Plan. 25% of the shares subject to the option vested and became exercisable on 1/2/2014. Thereafter, the remaining shares subject to the option vest and become exercisable in 36 equal monthly installments, at the rate of 15,570 shares per year. Following this transaction, the option was exercisable as to 17,430 on 1/2/2015. Remarks:

/s/B. Lynne Parshall ** Signature of Reporting Person

\$30.0475

\$14.69

A

Α

4,417

15,617

4 417

01/05/2015 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 Num

Know all by these presents, that the undersigned hereby constitutes and appoints each of Stanley T. Crooke and B. Lynne Parshall, signing individually, the undersigned (1) execute for and on behalf of the undersigned, an officer, director or holder of 10% or more of a registered class of securities of Isis Pharmaceuticals, Inc. (Is (2) do and perform any and all acts for and on behalf of the undersigned that may be necessary or desirable to complete and execute such Form 3, 4 or 5, complete and (3) take any other action of any nature whatsoever in connection with the foregoing which, in the opinion of such attorney-in-fact, may be of benefit, in the best in The undersigned hereby grants to each such attorney-in-fact full power and authority to do and perform any and every act and thing whatsoever requisite, necessary, (This Power of Attorney shall remain in full force and effect until the earliest to occur of (a) the undersigned is no longer required to file Forms 3, 4 and 5 with the set in the set in the undersigned is no longer required to file Forms 3, 4 and 5 with the set in the undersigned is no longer required to file Forms 3, 4 and 5 with the set in the undersigned is no longer required to file Forms 3, 4 and 5 with the set in the undersigned is no longer required to file Forms 3, 4 and 5 with the set in the undersigned is no longer required to file Forms 3, 4 and 5 with the set in the undersigned is no longer required to file Forms 3, 4 and 5 with the set in the undersigned is no longer required to file Forms 3, 4 and 5 with the set in the undersigned is no longer required to file Forms 3, 4 and 5 with the set in the undersigned is no longer required to file Forms 3, 4 and 5 with the set in the undersigned is no longer required to file Forms 3, 4 and 5 with the set in the set

IN WITNESS WHEREOF, the undersigned has cause this Power of Attorney to be executed as of this 11th day of November, 2002.

/s/B. Lynne Parshall