

**FORM 4**

**UNITED STATES SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

OMB APPROVAL

OMB Number: 3235-0287  
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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).

**STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP**

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* <u>AGRAWAL SUDHIR</u> <hr/> (Last) (First) (Middle) <u>C/O IDERA PHARMACEUTICALS, INC.</u> <u>167 SIDNEY STREET</u> <hr/> (Street) <u>CAMBRIDGE MA 02139</u> <hr/> (City) (State) (Zip)			2. Issuer Name and Ticker or Trading Symbol <u>IDERA PHARMACEUTICALS, INC. [ IDRA ]</u> 3. Date of Earliest Transaction (Month/Day/Year) <u>07/07/2008</u> 4. If Amendment, Date of Original Filed (Month/Day/Year)			5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director 10% Owner <input checked="" type="checkbox"/> Officer (give title below) Other (specify below) <p style="text-align: center;"><b>CEO &amp; CSO</b></p> 6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person Form filed by More than One Reporting Person		
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**Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned**

1. Title of Security (Instr. 3)	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) (Instr. 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)
			Code	V	Amount	(A) or (D)	Price			
Common Stock	07/07/2008		M		63,784	A	\$4	145,868	D	
Common Stock	07/07/2008		S <sup>(1)</sup>		27,600	D	\$13.1079 <sup>(2)</sup>	118,268	D	
Common Stock	07/08/2008		M		18,769	A	\$4	137,037	D	
Common Stock	07/08/2008		S <sup>(1)</sup>		7,486	D	\$13.3366 <sup>(3)</sup>	129,551	D	
Common Stock	07/08/2008		S <sup>(1)</sup>		500	D	\$14	129,051	D	

**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. 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)	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
Stock Options	\$4	07/07/2008		M			54,514	01/21/2000	07/21/2008	Common Stock	54,514	\$0.00	7,986	D	
Stock Options	\$4	07/07/2008		M			9,270	04/01/2001	01/01/2009	Common Stock	9,270	\$0.00	53,229	D	
Stock Options	\$4	07/08/2008		M			7,986	10/29/1999	07/21/2008	Common Stock	7,986	\$0.00	0	D	
Stock Options	\$4	07/08/2008		M			10,783	04/01/2001	01/01/2009	Common Stock	10,783	\$0.00	42,446	D	

**Explanation of Responses:**

- The sales reported in this Form 4 were effected pursuant to a Rule 10b5-1 trading plan adopted by the reporting person on May 21, 2008 and the proceeds of such sales are to be used to exercise expiring stock options and applicable taxes associated with the exercise of the options and the sale of the shares under the plan. The reporting person hereby undertakes to provide upon request by the staff of the Securities and Exchange Commission, the issuer or a shareholder of the issuer full information regarding the number of shares sold at each separate price.
- Represents the sale of 27,600 shares in 33 separate transactions, ranging from \$12.90 to \$13.45 per share, resulting in a weighted average sale price per share of \$13.1079.
- Represents the sale of 7,486 shares in 17 separate transactions, ranging from \$13.00 to \$13.93 per share, resulting in a weighted average sale price per share of \$13.3366.

**Remarks:**

Sudhir Agrawal 07/09/2008  
 \*\* Signature of Reporting Person Date

\* 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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