

OMB APPROVAL	
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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> (Last) (First) (Middle) <u>C/O IDERA PHARMACEUTICALS, INC.</u> <u>167 SIDNEY STREET</u> (Street) <u>CAMBRIDGE MA 02139</u> (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol <u>IDERA PHARMACEUTICALS, INC. [IDRA]</u>	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) <u>CEO, President & CSO</u>
	3. Date of Earliest Transaction (Month/Day/Year) <u>12/22/2008</u>	
4. If Amendment, Date of Original Filed (Month/Day/Year)		

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	12/22/2008		S ⁽¹⁾		1,300	D	\$7.4054 ⁽²⁾	140,177	D	
Common Stock	12/22/2008		S ⁽¹⁾		1,500	D	\$8.3833 ⁽³⁾	138,677	D	
Common Stock	12/23/2008		S ⁽¹⁾		1,500	D	\$7.5687 ⁽⁴⁾	137,177	D	
Common Stock	12/24/2008		S ⁽¹⁾		4,285	D	\$7.4814 ⁽⁵⁾	132,892	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					

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 as subsequently amended. 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. There will be no additional transactions entered into pursuant to the reporting person's 10b5-1 trading plan after December 24, 2008 since the 10b5-1 trading plan has been completed. 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 1,300 shares in 13 separate transactions, ranging from \$7.18 to \$7.64 per share, resulting in a weighted average sale price per share of \$7.4054.
- Represents the sale of 1,500 shares in 7 separate transactions, ranging from \$8.18 to \$8.45 per share, resulting in a weighted average sale price per share of \$8.3833.
- Represents the sale of 1,500 shares in 10 separate transactions, ranging from \$7.50 to \$7.66 per share, resulting in a weighted average sale price per share of \$7.5687.
- Represents the sale of 4,285 shares in 13 separate transactions, ranging from \$7.43 to \$7.56 per share, resulting in a weighted average sale price per share of \$7.4814.

Remarks:

Sudhir Agrawal 12/24/2008
 ** 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.