FORM 3

## UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

OMB APPROVAL

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## INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF **SECURITIES**

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

Arboit Pobort D	2. Date of Event Requiring Statemen (Month/Day/Year) 04/07/2010	ment	3. Issuer Name and Ticker or Trading Symbol IDERA PHARMACEUTICALS, INC. [ IDRA ]					
(Last) (First) (Middle)			. Relationship of Reporting Pers Check all applicable)	, ,	(Mor	5. If Amendment, Date of Original Filed (Month/Day/Year)		
IDERA PHARMACEUTICALS, INC. 167 SIDNEY STREET			Director  X Officer (give title below)  VP Clinical Devel	10% Owne Other (spe below)	cify 6. In	6. Individual or Joint/Group Filing (Check Applicable Line)  X Form filed by One Reporting Person Form filed by More than One Reporting Person		
(Street) CAMBRIDGE MA 02139			VI Chimeur Bever	opinent				
(City) (State) (Zip)								
Table I - Non-Derivative Securities Beneficially Owned								
1. Title of Security (Instr. 4)			Amount of Securities neficially Owned (Instr. 4)	3. Ownersh Form: Direct or Indirect ( (Instr. 5)	t (D) (Instr	4. Nature of Indirect Beneficial Ownership (Instr. 5)		
Table II - Derivative Securities Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)								
1. Title of Derivative Security (Instr. 4)	2. Date Exercisable and Expiration Date (Month/Day/Year)		3. Title and Amount of Securities Underlying Derivative Security (Instr.		4. Conversion or	Form:	6. Nature of Indirect Beneficial Ownership (Instr. 5)	
	Date Exercisable	Expiration Date	Title	Amount or Number of Shares	Exercise Price of Derivative Security	Direct (D) or Indirect (I) (Instr. 5)		
Stock Options	(1)	08/03/2019	Common Stock	40,000	6.43	D		
Stock Options	(2)	12/23/2019	Common Stock	17,000	5.24	D		

## **Explanation of Responses:**

- 1. The options vest in equal quarterly installments over four years, beginning on August 3, 2009.
- 2. The options vest in equal quarterly installments over four years, beginning on December 23, 2009.

## Remarks:

/s/ Robert D. Arbeit

04/07/2010

\*\* 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 5 (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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