## FORM 4

## UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

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

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 <sup>*</sup> REARDON WILLIAM S						2. Issuer Name and Ticker or Trading Symbol IDERA PHARMACEUTICALS, INC. [ IDRA ]									neckalla X Dire	hip of Reporti oplicable) ector	ng Per	10% C	Owner
(Last) (First) (Middle) 9 STEAMBOAT LANE					3. Date of Earliest Transaction (Month/Day/Year) 04/01/2009											icer (give title ow)		Other below)	(specify
(Street) HINGHAM MA 02043 (City) (State) (Zip)				4. If Ar	4. If Amendment, Date of Original Filed (Month/Day/Year)									e) X For For	l or Joint/Group Filing (Check Applicable rm filed by One Reporting Person rm filed by More than One Reporting rson				
Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned																			
1. Title of Security (Instr. 3) (Month/Day				tion y/Year)	on 2A. Deemed Execution Date,			3. Transac Code (In 8) Code	tion	4. Securi	ities Ac d Of (D) (A	(A) or (D) (Instr. 3, 4) (A) or (D) Price		or 5. Au Secu Ben Own Follo Rep Tran	-		mership : Direct r ect (I) . 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)	
Common Stock 04/01/20					2009	)09			A		1,070	,	A	\$6.2	_ <u> `</u>	5,233		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)	Execution Date, Day/Year) if any			Transaction Code (Instr. 3)		mber ative rities ired	6. Date Exercisable and Expiration Date (Month/Day/Year) Date Expiration Exercisable Date			7. Title and Amount of Securities Underlying Derivative Security (Instr 3 and 4) Amoun or Numbo Title Shares		str. ount iber	8. Price of Derivativ Security (Instr. 5)	9. Number derivative Becurities Beneficially Owned Following Reported Transactior (Instr. 4)	Ov Fo Di or (I) 4)	wnership orm: irect (D) Indirect (Instr.	11. Nature of Indirect Beneficial Ownership (Instr. 4)

Explanation of Responses:

Remarks:

/s/ Frank Whalen, attorney-in-04/03/2009

fact for William S. Reardon

\*\* Signature of Reporting Person Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

 $^{\star}$  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.