FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

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, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

OMB APPROVAL								
OMB Number:	3235-0287							
Expires:	December 31, 2014							
Estimated average burden								
hours per response	0.5							

1. Name and Address of Reporting Person* Palmer Pamela P			2. Issuer Name and Ticker or Trading Symbol ACELRX PHARMACEUTICALS INC [ACRX]	5. Relationship of Reporting Person(s) to Issuer				
(Last) C/O ACELRX INC., 575 CH		•	3. Date of Earliest Transaction (Month/Day/Year) 02/07/2012	X	eck all applicable) Director Officer (give title below) Chief Medica	10% Owner Other (specify below)		
(Street) REDWOOD CA 94063 CITY (City) (State) (Zip)			4. If Amendment, Date of Original Filed (Month/Day/Year)	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-Derivative Securities Acquired, Disposed of, or Beneficially Owned											
1.Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	Execution Date,	3. Transact Code (Instr. 8)		4. Secur Acquired Disposed (Instr. 3,	(A) d of (4 ar (A) or	or (D)	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)	

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. Transac 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 Underlying Securities (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 of Derivative Security: 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				
Common Stock (Right to Buy) (1)	\$ 3.39	02/07/2012		A		231,911		02/07/2013 ⁽²⁾⁽³⁾	02/06/2022	Common Stock	231,911	\$ 0	231,911	D	

Explanation of Responses:

- 1. Issued pursuant to the 2011 Equity Incentive Plan.
- 2. The shares subject to the option vest as follows: 25% of the shares suject to the option vest on the 12 month anniversary of the Vesting Commencement Date (February 7, 2012) and the remaining shares subject to the stock option vest on an equal monthly basis over the following 36 months.
- 3. The shares have double-trigger acceleration on a change of control.

/s/ James Welch, Attorneyin-fact <u>02/09/2012</u>

** 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.