FORM	4
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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).

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

OMB APPROVAL

Estimated average burden

3235-0287

2014

0.5

December 31,

OMB

Number:

Expires:

hours per response

Washington, D.C. 20549

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

1. Name and Address of Reporting Person [*] WELCH JAMES H			2. Issuer Name and Ticker or Trading Symbol ACELRX PHARMACEUTICALS INC [ACRX]	5. Relationship of Reporting Person(s) to Issuer				
(Last) (First) (Middle) C/O ACELRX PHARMACEUTICALS, INC., 575 CHESAPEAKE DRIVE (Street) REDWOOD CITY CA 94063		TICALS,	3. Date of Earliest Transaction (Month/Day/Year) 03/02/2011	(Check all applicable) Director 10% Owner X Officer (give title below) Other (specify below) Chief Financial Officer 6. Individual or Joint/Group Filing (Check Applicable Line) X Form filed by One Reporting Person Form filed by More than One Reporting Person				
		94063 (Zip)	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)	Transaction Code		4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)			5. Amount of Securities Beneficially Owned	6. Ownership Form: Direct (D)	7. Nature of Indirect Beneficial Ownership (Instr. 4)	
			Code	V	Amount	(A) or mount (D) Price		Following Reported Transaction(s) (Instr. 3 and 4)	rted (I) saction(s) (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)	Transaction Number of Code Derivative				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				
Stock Option (Right to Buy) (1)	\$ 3.45	03/02/2010		A		25,000		03/02/2012 ⁽²⁾⁽³⁾	03/01/2021	Common Stock	25,000	\$0	25,000	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 subject to the option vest on the 12 month anniversary of the Vesting Commencement Date (March 2, 2011) 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 ** Signature of Reporting Person 03/04/2011

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.