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

		Reporting Person*	2. Issuer Name and Ticker or Trading Symbol ACELRX PHARMACEUTICALS INC [ACRX]	5. Relationship of Reporting Person(s) to Issuer
(Last) 3200 ALPINE	(First) E ROAD,	(Middle)	3. Date of Earliest Transaction (Month/Day/Year) 02/16/2011	Officer (give title below) (Check all applicable) Director X 10% Owner Other (specify below)
(Street) PORTOLA VALLEY	CA	94028	4. If Amendment, Date of Original Filed (Month/Day/Year)	6. Individual or Joint/Group Filing (Check Applicable Line) Form filed by One Reporting Person Form filed by More than One
(City)	(State)	(Zip)		Reporting Person

	Table I - No	on-Derivative Sec	urities A	cqu	ired, Dis	pos	ed 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,	d (A) d of	or (D)	5. Amount of Securities Beneficially Owned	6. Ownership Form: Direct (D)	7. Nature of Indirect Beneficial Ownership
			Code	V	Amount	(A) or (D)	Price	Following Reported Transaction(s) (Instr. 3 and 4)	or Indirect (I) (Instr. 4)	(Instr. 4)

		Tab	le II - Derivati (e.g., pu										t		
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 Derivative Securities Acquired Disposed (Instr. 3, 5)	re s (A) or of (D)	6. Date Exercisabl Expiration (Month/Da	Date	7. Title and Amount Underly Securities (Instr. 3	of /ing es	8. Price of Derivative Security (Instr. 5)	9. Number of Derivative Securities Beneficially Owned Following Reported	10. Ownership Form of Derivative Security: Direct (D) or Indirect	11. Nature of Indirect Beneficial Ownership (Instr. 4)
				Code	V	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares		Transaction(s) (Instr. 4)	(I) (Instr. 4)	
Series C Convertible Preferred Stock	(7)	02/16/2011		С			24,130	(10)	(11)	Common Stock	24,130	\$0	0	1	See Footnote (4)
Warrant to purchase Series C Convertible Preferred Stock	(14)	02/16/2011		J		631 ⁽¹⁷⁾		(15)	(16)	Series C Preferred Stock	631	(17)	631	ı	See Footnote (2)
Warrant to purchase Series C Convertible Preferred Stock	(14)	02/16/2011		х			631	(15)	(16)	Series C Preferred Stock	631	\$ 0	0	ı	See Footnote (2)
Series C Convertible Preferred Stock	(14)	02/16/2011		х		631		(10)	(11)	Common Stock	631	\$ 0	631	ı	See Footnote (2)
Series C Convertible Preferred Stock	\$ 5	02/16/2011		S			498 (23)	(10)	(11)	Common Stock	498	\$0	133	1	See Footnote (2)
Series C Convertible Preferred Stock	(7)	02/16/2011		С			133	(10)	(11)	Common Stock	133	\$ 0	0	ı	See Footnote (2)
Warrant to purchase Series C Convertible Preferred Stock	(14)	02/16/2011		J		11,754 (18)		(15)	(16)	Series C Preferred Stock	11,754	(18)	11,754	ı	See Footnote (4)
Warrant to purchase Series C Convertible Preferred Stock	(14)	02/16/2011		х			11,754	(15)	(16)	Series C Preferred Stock	11,754	\$ 0	0	ı	See Footnote (4)
Series C Convertible Preferred Stock	(14)	02/16/2011		x		11,754		(10)	(11)	Common Stock	11,754	\$0	11,174	ı	See Footnote (4)
Series C Convertible Preferred Stock	\$ 5	02/16/2011		S			9,269 (24)	(10)	(11)	Common Stock	9,269	\$ 0	2,485	ı	See Footnote (4)
Series C Convertible Preferred Stock	(7)	02/16/2011		С			2,485	(10)	(11)	Common Stock	2,485	\$ 0	0	ı	See Footnote (4)
Convertible Promissory Note	(19)	02/16/2011		J		\$ 9,966.73 (17)		(19)	(19)	Common Stock	2,534	\$0	2,534	ı	See Footnote (2)
Convertible Promissory Note	(20)	02/16/2011		J		\$ 185,385.3 (18)		(20)	(20)	Common Stock	47,144	\$0	47,144	ı	See Footnote (4)
Convertible Promissory Note	(19)	02/16/2011		С			\$ 9,966.73	(19)	(19)	Common Stock	2,534	\$ 0	0	ı	See Footnote (2)
Convertible Promissory Note	(20)	02/16/2011		С			\$ 185,385.3	(20)	(20)	Common Stock	47,144	\$ 0	0	1	See Footnote (4)

1. Name and Addres THREE ARCH MAN	s of Reporting Person	on [*]
(Last) 3200 ALPINE ROAD	(First)	(Middle)
(Street) PORTOLA VALLEY	CA	94028
(City)	(State)	(Zip)
1. Name and Addres	s of Reporting Perso	on [*]

1. Name and Address of Reporting Person* WAN MARK A

(Last)	(First)	(Middle)
C/O THREE ARCH F	PARTNERS, 3200 ALF	PINE RD
(Street)		
PORTOLA VALLEY	CA	94028
(City)	(State)	(Zip)
1. Name and Address JAEGER WILFRED	s of Reporting Perso E	n [*]
(Last)	(First)	(Middle)
C/O THREE ARCH	PARTNERS, 3200 ALF	PINE RD
(Street)		
PORTOLA VALLEY	CA	94028
(City)	(State)	(Zip)
1. Name and Addres	ss of Reporting Perso	n [*]
		(Middle)
THREE ARCH PART	TNERS III LP	
THREE ARCH PART (Last)	TNERS III LP	
(City)	(First) (State) ss of Reporting Person	(Middle) (Zip)
(Last) (Street) (City) 1. Name and Address	(First) (State) ss of Reporting Person	(Middle) (Zip)
(Last) (Street) (City) 1. Name and Address THREE ARCH ASSO (Last)	(State) ss of Reporting Person DCIATES III LP	(Middle) (Zip) n* (Middle)
(Last) (Street) (City) 1. Name and Address THREE ARCH ASSOCIATION (Last) (C/O THREE ARCH I	(State) (State) (State) CIATES III LP (First)	(Middle) (Zip) n* (Middle)
(Last) (Street) (City) 1. Name and Address THREE ARCH ASSO (Last)	(State) (State) (State) (State) CIATES III LP (First) PARTNERS, 3200 ALI	(Middle) (Zip) n* (Middle)

Explanation of Responses:

- 2. The shares are held by Three Arch Associates III, L.P. The voting and dispositive decisions with respect to the shares held by Three Arch Associates III, L.P., are made by the following Managing Members of its general partner Three Arch Management III, L.L.C.: Mark Wan and Wilfred Jaeger, each of whom disclaims beneficial ownership of such shares.
- 4. The shares are held by Three Arch Partners III, L.P. The voting and dispositive decisions with respect to the shares held by Three Arch Partners III, L.P., are made by the following Managing Members of its general partner Three Arch Management III, L.L.C.: Mark Wan and Wilfred Jaeger, each of whom disclaims beneficial ownership of such shares.
- 7. The shares reflect the automatic conversion of shares of the Issuer's Series C Convertible Preferred Stock into Common Stock on a one-for-one basis upon the closing of the Issuer's initial public offering.
- 10. Immediately convertible into shares of the Issuer's Common Stock.
- 11. These shares have no expiration date.
- 14. The exercise price is \$3.942 per share.
- 15. Immediately exercisable prior to and contingent upon the closing of the Issuer's initial public offering.
- 16. Pursuant to its terms, the warrant was to be terminated at the closing of the Issuer's initial public offering. Holder elected to net exercise the warrants immediately prior to the closing of the Issuer's initial public offering. In the event the Issuer's public offering did not occur, the warrant would have terminated on September 14, 2017, unless earlier terminated in accordance with its terms, in a liquidation or change of control transaction.
- 17. Pursuant to that certain Note and Warrant Transfer Agreement dated February 16, 2011, ACP IV, L.P. transferred (i) a convertible

promissory note in the amount of \$10,138.38 including accrued interest and (ii) an associated warrant to purchase preferred stock of the Issuer, exercisable into 631 shares of Series C Convertible Preferred Stock to Three Arch Associates III, L.P., for a nominal consideration, contingent upon the closing of the Issuer's initial public offering.

- 18. Pursuant to that certain Note and Warrant Transfer Agreement dated February 16, 2011, ACP IV, L.P. transferred (i) a convertible promissory note in the amount of \$188,578.05 including accrued interest and (ii) an associated warrant to purchase preferred stock of the Issuer, exercisable into 11,754 shares of Series C Convertible Preferred Stock to Three Arch Partners III, L.P., for a nominal consideration, contingent upon the closing of the Issuer's initial public offering.
- 19. A note with the principal amount plus accrued interest of \$10,138.38 converted automatically upon the closing of the Issuer's initial public offering into shares of Common Stock at a conversion price of \$4.00, which is 80.0% of the per share price of the Common Stock sold in the Issuer's initial public offering.
- 20. A note with the principal amount plus interest of \$188,578.05 converted automatically upon the closing of the Issuer's initial public offering into shares of Common Stock at a conversion price of \$4.00, which is 80.0% of the per share price of the Common Stock sold in the Issuer's initial public offering.
- 23. These shares represent the net exercise of a warrant to purchase Series C Convertible Preferred Stock for an acquisition of 133 shares of Series C Convertible Preferred Stock of the Issuer.
- 24. These shares represent the net exercise of a warrant to purchase Series C Convertible Preferred Stock for an acquisition of 2,485 shares of Series C Convertible Preferred Stock of the Issuer.

Remarks:

Form 2 of 2.

<u>/s/ Stephen J. Bonelli,</u> <u>Attorney-in-fact</u>

02/18/2011

** 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.