

OMB APPROVAL	
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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).

**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

<b>1. Name and Address of Reporting Person *</b> Three Arch Management IV, L.L.C.  (Last) (First) (Middle) 3200 ALPINE ROAD,  (Street) PORTOLA VALLEY CA 94028  (City) (State) (Zip)	<b>2. Issuer Name and Ticker or Trading Symbol</b> ACELRX PHARMACEUTICALS INC [ACRX]	<b>5. Relationship of Reporting Person(s) to Issuer</b> (Check all applicable) Director <input checked="" type="checkbox"/> 10% Owner  Officer (give title below) Other (specify below)
	<b>3. Date of Earliest Transaction</b> (Month/Day/Year) 02/16/2011	
	<b>4. If Amendment, Date of Original Filed</b> (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)	3. Transaction Code (Instr. 8)		4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)			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)
			Code	V	Amount	(A) or (D)	Price			
Common Stock	02/16/2011		C		13,277	A	(1)	13,277	I	See Footnote (2)
Common Stock	02/16/2011		C		601,335	A	(3)	601,335	I	See Footnote (4)
Common Stock	02/16/2011		C		10,630	A	(5)	23,907	I	See Footnote (2)
Common Stock	02/16/2011		C		481,465	A	(6)	1,082,800	I	See Footnote (4)
Common Stock	02/16/2011		C		18,928	A	(7)	42,835	I	See Footnote (2)
Common Stock	02/16/2011		C		857,241	A	(7)	1,940,041	I	See Footnote (4)
Common Stock	02/16/2011		C		11,492	A	(8)	54,327	I	See Footnote (2)
Common Stock	02/16/2011		C		520,510	A	(9)	2,460,551	I	See Footnote (4)
Common Stock	02/16/2011		C		605	A	(7)	54,932	I	See Footnote (2)
Common Stock	02/16/2011		C		27,440	A	(7)	2,487,991	I	See Footnote (4)
Common Stock	02/16/2011		P		27,863	A	\$ 5	82,795	I	See Footnote (2)
Common Stock	02/16/2011		P		1,261,927	A	\$ 5	3,749,918	I	See Footnote (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. Transaction 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				
Series A Convertible Preferred Stock	(1)	02/16/2011		C			9,721	(10)	(11)	Common Stock	13,277	\$ 0	0	I	See Footnote (2)
Series A Convertible Preferred Stock	(3)	02/16/2011		C			440,278	(10)	(11)	Common Stock	601,335	\$ 0	0	I	See Footnote (4)
Series B Convertible Preferred Stock	(5)	02/16/2011		C			7,088	(10)	(11)	Common Stock	10,630	\$ 0	0	I	See Footnote (2)
Series B Convertible Preferred Stock	(6)	02/16/2011		C			321,036	(10)	(11)	Common Stock	481,465	\$ 0	0	I	See Footnote (4)
Series C Convertible Preferred Stock	(7)	02/16/2011		C			18,928	(10)	(11)	Common Stock	18,928	\$ 0	0	I	See Footnote (2)
Series C Convertible Preferred Stock	(7)	02/16/2011		C			857,241	(10)	(11)	Common Stock	857,241	\$ 0	0	I	See Footnote (4)
Convertible Promissory Note	(12)	02/16/2011		C			\$ 40,973.37	(12)	(12)	Common Stock	10,419	\$ 0	0	I	See Footnote (2)
Convertible Promissory Note	(13)	02/16/2011		C			\$ 1,855,666.23	(13)	(13)	Common Stock	471,905	\$ 0	0	I	See Footnote (4)
Warrant to purchase Series C Convertible Preferred Stock	(14)	02/16/2011		X			2,597	(15)	(16)	Series C Preferred Stock	2,597	\$ 0	0	I	See Footnote (2)
Series C Convertible Preferred Stock	(14)	02/16/2011		X		2,597		(10)	(11)	Common Stock	2,597	\$ 0	2,597	I	See Footnote (2)
Series C Convertible Preferred Stock	\$ 5	02/16/2011		S			2,048 <sup>(21)</sup>	(10)	(11)	Common Stock	2,048	\$ 0	549	I	See Footnote (2)
Series C Convertible Preferred Stock	(7)	02/16/2011		C			549	(10)	(11)	Common Stock	549	\$ 0	0	I	See Footnote (2)
Warrant to purchase Series C Convertible Preferred Stock	(14)	02/16/2011		X			117,661	(15)	(16)	Series C Preferred Stock	117,661	\$ 0	0	I	See Footnote (4)
Series C Convertible Preferred Stock	(14)	02/16/2011		X		117,661		(10)	(11)	Common Stock	117,661	\$ 0	117,661	I	See Footnote (4)
Series C Convertible Preferred Stock	\$ 5	02/16/2011		S			92,783 <sup>(22)</sup>	(10)	(11)	Common Stock	92,783	\$ 0	24,878	I	See Footnote (4)

**1. Name and Address of Reporting Person \***

Three Arch Management IV, L.L.C.

(Last) (First) (Middle)

3200 ALPINE ROAD

(Street)

PORTOLA VALLEY CA 94028

(City) (State) (Zip)

**1. Name and Address of Reporting Person \***

THREE ARCH ASSOCIATES IV LP

(Last) (First) (Middle)

3200 ALPINE ROAD  

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**(Street)**  
PORTOLA VALLEY CA 94028  

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**(City)** **(State)** **(Zip)**

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

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**(Last)** **(First)** **(Middle)**  
C/O THREE ARCH PARTNERS, 3200 ALPINE RD  

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**(Street)**  
PORTOLA VALLEY CA 94028  

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**(City)** **(State)** **(Zip)**

**1. Name and Address of Reporting Person \***  
JAEGER WILFRED E  

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**(Last)** **(First)** **(Middle)**  
C/O THREE ARCH PARTNERS, 3200 ALPINE RD  

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**(Street)**  
PORTOLA VALLEY CA 94028  

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**(City)** **(State)** **(Zip)**

**1. Name and Address of Reporting Person \***  
THREE ARCH PARTNERS IV LP  

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**(Last)** **(First)** **(Middle)**  

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**(Street)**  

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**(City)** **(State)** **(Zip)**

**Explanation of Responses:**

1. The shares reflect the automatic conversion of 9,721 shares of the Issuer's Series A Convertible Preferred Stock for 13,277 shares of the Issuer's Common Stock immediately prior to the closing of the Issuer's initial public offering.
2. The shares are held by Three Arch Associates IV, L.P. The voting and dispositive decisions with respect to the shares held by Three Arch Associates IV, L.P., are made by the following Managing Members of its general partner Three Arch Management IV, L.L.C.: Mark Wan and Wilfred Jaeger, each of whom disclaims beneficial ownership of such shares.
3. The shares reflect the automatic conversion of 440,278 shares of the Issuer's Series A Convertible Preferred Stock for 601,335 shares of the Issuer's Common Stock immediately prior to the closing of the Issuer's initial public offering.
4. The shares are held by Three Arch Partners IV, L.P. The voting and dispositive decisions with respect to the shares held by Three Arch Partners IV, L.P., are made by the following Managing Members of its general partner Three Arch Management IV, L.L.C.: Mark Wan and Wilfred Jaeger, each of whom disclaims beneficial ownership of such shares.
5. The shares reflect the automatic conversion of 7,088 shares of the Issuer's Series B Convertible Preferred Stock for 10,630 shares of the Issuer's Common Stock immediately prior to the closing of the Issuer's initial public offering.
6. The shares reflect the automatic conversion of 321,036 shares of the Issuer's Series B Convertible Preferred Stock for 481,465 shares of the Issuer's Common Stock immediately prior to the closing of the Issuer's initial public offering.
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.
8. Notes and accrued interest in the aggregate of \$45,971.78 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.

9. Notes and accrued interest in the aggregate of \$2,082,045.53 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.
10. Immediately convertible into shares of the Issuer's Common Stock.
11. These shares have no expiration date.
12. A note with the principal amount plus accrued interest of \$41,679.02 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.
13. A note with the principal amount plus accrued interest of \$1,887,621.87 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.
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.
21. These shares represent the net exercise of a warrant to purchase Series C Convertible Preferred Stock for an acquisition of 549 shares of Series C Convertible Preferred Stock of the Issuer.
22. These shares represent the net exercise of a warrant to purchase Series C Convertible Preferred Stock for an acquisition of 24,878 shares of Series C Convertible Preferred Stock of the Issuer.

**Remarks:**

Form 1 of 2

/s/ Stephen J. Bonelli.                      02/18/2011  
Attorney-in-fact

\*\* Signature of Reporting                      Date  
Person

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.**