

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> NOHRA GUY P <hr/> (Last) (First) (Middle) ONE EMBARCADERO CENTER, SUITE 3700 <hr/> (Street) SAN FRANCISCO CA 94111 <hr/> (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) <input checked="" type="checkbox"/> 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		682,904	A	(1)	682,904	I	See Footnote (2)
Common Stock	02/16/2011		C		328,064	A	(3)	1,010,968	I	See Footnote (2)
Common Stock	02/16/2011		C		810,129	A	(4)	1,821,097	I	See Footnote (2)
Common Stock	02/16/2011		C		279,097	A	(5)	2,100,194	I	See Footnote (2)
Common Stock	02/16/2011		C		14,713	A	(4)	2,114,897	I	See Footnote (2)
Common Stock	02/16/2011		P		680,000	A	\$ 5	2,794,907	I	See Footnote (2)

**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			500,000	(6)	(7)	Common Stock	682,904	(1)	0	I	See Footnote (2)
Series B Convertible Preferred Stock	(3)	02/16/2011		C			218,750	(6)	(7)	Common Stock	328,064	(3)	0	I	See Footnote (2)
Series C Convertible Preferred Stock	(4)	02/16/2011		C			810,129	(6)	(7)	Common Stock	810,129	(4)	0	I	See Footnote (2)
Convertible Promissory Note	(8)	02/16/2011		J			\$ 644,556	(9)	(9)	Common Stock	163,914	(9)	\$ 1,097,487	I	See Footnote (2)
Warrant to Purchase Series C Preferred Stock	(8)	02/16/2011		J			40,865	(10)	(11)	Series C Preferred	40,865	(10)	69,588	I	See Footnote (2)
Convertible Promissory Note	(5)	02/16/2011		C			\$ 1,097,487	(5)	(5)	Common Stock	279,097	(5)	0	I	See Footnote (2)
Warrant to Purchase Series C Preferred Stock	(10)	02/16/2011		X			69,588	(10)	(12)	Series C Preferred	69,588	(10)	0	I	See Footnote (2)
Series C Convertible Preferred Stock	(4)	02/16/2011		X			69,588 (13)	(6)	(7)	Common Stock	69,588	(4)	0	I	See Footnote (2)
Series C Convertible Preferred Stock	(4)	02/16/2011		S			54,875 (13)	(6)	(7)	Common Stock	54,875	\$ 5	14,713	I	See Footnote (2)
Series C Convertible Preferred Stock	(4)	02/16/2011		C			14,713	(6)	(7)	Common Stock	14,713	(4)	0	I	See Footnote (2)

**Explanation of Responses:**

- The shares reflect the automatic conversion of 500,000 shares of the Issuer's Series A Preferred Stock for 682,904 shares of the Issuer's Common Stock immediately prior to the closing of the Issuer's initial public offering.
- These shares are held by ACP IV, LP ("ACPIV"). Guy Nohra, a Director of the Issuer, is also a Director of ACMP IV, LLC ("ACMPIV"), which is the general partner of ACPIV. Mr. Nohra may be deemed to share voting and dispositive power with respect to all securities of the Issuer held by ACPIV with the directors of ACMPIV but disclaims beneficial ownership of such securities except to the extent of his proportionate pecuniary interest therein.
- The shares reflect the automatic conversion of 218,750 shares of Series B Preferred Stock for 328,064 shares of Common Stock immediately prior to the closing of the Issuer's initial public offering.
- The shares reflect the automatic conversion of shares of the Issuer's Series C Preferred Stock into Common Stock on a one-to-one basis upon the closing of the Issuer's initial public offering.
- Notes and accrued interest in the aggregate of \$1,116,388.59 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% of the per share price of the Common Stock sold in the Issuer's initial public offering.
- Immediately convertible into shares of the Issuer's Common Stock.
- These shares have no expiration date.
- Pursuant to Note and Warrant Transfer Agreement dated February 16, 2011, ACP IV, L.P. transferred (i) a convertible promissory note in the amount of \$655,656.79 including accrued interest and (ii) an associated warrant to purchase preferred stock on the Issuer, exercisable into 40,865 shares of Series C Preferred Stock.
- Principal amount plus interest converts 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% of the per share price of the Common Stock sold in the Issuer's initial public offering.
- The exercise price is \$3.9428 per share and immediately exercisable prior to and contingent upon the closing of the Issuer's initial public offering.
- Pursuant to its terms, the warrant would terminate at 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.
- Pursuant to its terms, the warrant would terminate at the closing of the Issuer's initial public offering. Holder has elected to net exercise the warrants contingent upon and effective immediately prior to the closing of the Issuer's initial public offering of common stock.

13. These shares reflect the net exercise of the Series C warrant pursuant to the terms of the warrant into 14,713 shares of the Issuer's Series C Preferred Stock.

/s/ Guy Nohra

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.

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