

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

1. Name and Address of Reporting Person * Skyline Venture Partners Qualified Purchaser Fund IV L P (Last) (First) (Middle) 125 UNIVERSITY AVE, (Street) PALO ALTO CA 94301 (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol ACELRX PHARMACEUTICALS INC [ACRX]	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director <input checked="" type="checkbox"/> 10% Owner Officer (give title below) Other (specify below)
	3. Date of Earliest Transaction (Month/Day/Year) 05/29/2012	
	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)	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	05/29/2012		P		284,698	A	\$ 3.4	4,161,933	I	See footnote (1)

**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				
Warrant to purchase Common Stock	\$ 3.4	05/29/2012		P		256,228		12/01/2012	12/01/2017	Common Stock	256,228	\$ 0.125	256,228	I	See footnote (1)

1. Name and Address of Reporting Person *
[Skyline Venture Partners Qualified Purchaser Fund IV L P](#)

(Last) (First) (Middle)
[125 UNIVERSITY AVE](#)

(Street)
[PALO ALTO CA 94301](#)

(City) (State) (Zip)

1. Name and Address of Reporting Person *
[Skyline Venture Management IV, LLC](#)

(Last) (First) (Middle)
[525 UNIVERSITY AVE., SUITE 520](#)

(Street)
[PALO ALTO CA 94301](#)

(City) (State) (Zip)

1. Name and Address of Reporting Person *
[HOFFMAN STEPHEN J](#)

(Last) (First) (Middle)
[ALLOS THERAPEUTICS, INC., 11080 CIRCLEPOINT ROAD, SUITE 200](#)

(Street)
[WESMINSTER CO 80020](#)

(City) (State) (Zip)

1. Name and Address of Reporting Person *
[KANEKO YASUNORI](#)

(Last) (First) (Middle)
[509 ROEHAMPTON](#)

(Street)
[HILLS BOROUGH CA 94010](#)

(City)	(State)	(Zip)
1. Name and Address of Reporting Person *		
Freund John Gordon		
(Last)	(First)	(Middle)
125 UNIVERSITY AVE., C/O SKYLINE VENTURES		
(Street)		
PALO ALTO	CA	94301
(City)	(State)	(Zip)

Explanation of Responses:

1. The shares are held by Skyline Venture Partners Qualified Purchaser Fund IV, L.P. John G. Freund and Yasunori Kaneko are the Managing Members of Skyline Venture Management IV, LLC, which is the sole general partner of Skyline Venture Partners Qualified Purchaser Fund IV, L.P., and as such Drs. Freund and Kaneko may be deemed to share voting and dispositive power with respect to all shares of Common Stock held by Skyline Venture Partners Qualified Purchaser Fund IV, L.P. Stephen Hoffman, one of the Issuer's directors, is a Managing Director of Skyline Ventures and as such may be deemed to share voting and dispositive power with respect to all shares of Common Stock held by Skyline Venture Partners Qualified Purchasers Fund IV, L.P. Each of Drs. Freund, Kaneko and Hoffman disclaims beneficial ownership of such shares except to the extent of any pecuniary interest therein.

/s/ Kerensa Kenny,
Attorney-in-Fact 05/31/2012

** 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.