

OMB Number:	3235-0104
Expires:	December 31, 2014
Estimated average burden hours per response	0.5

**INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES**

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> <b>PERCEPTIVE ADVISORS LLC</b> <hr/> (Last) (First) (Middle) <b>499 PARK AVENUE, 25TH FLOOR,</b> <hr/> (Street) <b>NEW YORK NY 10022</b> <hr/> (City) (State) (Zip)	<b>2. Date of Event Requiring Statement (Month/Day/Year)</b> <b>12/07/2012</b>	<b>3. Issuer Name and Ticker or Trading Symbol</b> <b>ACELRX PHARMACEUTICALS INC [ACRX]</b>	
		<b>4. Relationship of Reporting Person(s) to Issuer</b> <small>(Check all applicable)</small> Director <input checked="" type="checkbox"/> 10% Owner Officer (give title below) <input type="checkbox"/> Other (specify below)	<b>5. If Amendment, Date of Original Filed (Month/Day/Year)</b>  <b>6. Individual or Joint/Group Filing (Check Applicable Line)</b> <input type="checkbox"/> Form filed by One Reporting Person <input checked="" type="checkbox"/> Form filed by More than One Reporting Person

**Table I - Non-Derivative Securities Beneficially Owned**

1. Title of Security (Instr. 4)	2. Amount of Securities Owned (Instr. 4)	3. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	4. Nature of Indirect Beneficial Ownership (Instr. 5)
Common Stock	5,008,400	I	See Footnotes <sup>(1)</sup> <sup>(2)</sup>

**Table II - Derivative Securities Beneficially Owned**  
(e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 4)	2. Date Exercisable and Expiration Date (Month/Day/Year)		3. Title and Amount of Securities Underlying Derivative Security (Instr. 4)		4. Conversion or Exercise Price of Derivative Security	5. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	6. Nature of Indirect Beneficial Ownership (Instr. 5)
	Date Exercisable	Expiration Date	Title	Amount or Number of Shares <sup>M</sup>			

**Explanation of Responses:**

1. This Form 3 is being filed by Perceptive Life Science Master Fund Ltd. (the "Master Fund"), Perceptive Advisors LLC (the "Advisor") and Joseph Edelman. The Advisor serves as the investment manager of Master Fund. Mr. Edelman is the managing member of the Advisor.
2. This amount reflects the amount of securities held by the Master Fund immediately following the transaction requiring the filing of this statement. In accordance with Instruction 5(b)(iv) of Form 3, the entire amount of the Issuer's securities held by Master Fund is reported herein. Each of Mr. Edelman and the Advisor disclaims, for purposes of Section 16 of the Securities Exchange Act of 1934, beneficial ownership of such securities, except to the extent of his/its indirect pecuniary interest therein, and this report shall not be deemed an admission that either Mr. Edelman or the Advisor is the beneficial owner of such securities for purposes of Section 16 or for any other purposes.

/s/ Joseph Edelman,  
managing member of      12/13/2012  
Perceptive Advisors LLC

\*\* 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 5(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.**

Information Regarding Joint Filers

Designated Filer of Form 3: Perceptive Advisors LLC

Date of Earliest Transaction Required to be Reported: December 7, 2012

Issuer Name and Ticker Symbol: AcelRx Pharmaceuticals, Inc. [ACRX]

Names: Perceptive Life Sciences Master Fund Ltd. and Joseph Edelman

Address: Perceptive Advisors LLC  
499 Park Avenue, 25th Floor  
New York, NY 10022

Signatures:

The undersigned, Perceptive Life Sciences Master Fund Ltd. and Joseph Edelman are jointly filing the attached Statement of Beneficial Ownership of Securities on Form 3 with Perceptive Advisors LLC with respect to the beneficial ownership of securities of AcelRx Pharmaceuticals, Inc

Perceptive Life Sciences Master Fund Ltd.

By: Perceptive Advisors LLC, its investment manager

By: /s/ Joseph Edelman  
-----  
Joseph Edelman, managing member

JOSEPH EDELMAN

/s Joseph Edelman  
-----  
By: Joseph Edelman