

INFINITY PHARMACEUTICALS, INC.  
Form SC 13G  
February 14, 2013

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 13G

Under the Securities Exchange Act of 1934

**Infinity Pharmaceuticals, Inc.**

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(Name of Issuer)

Common Stock

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(Title of Class of Securities)

**45665G303**

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(CUSIP Number)

December 31, 2012

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(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

Rule 13d-1(b)  
 Rule 13d-1(c)

£ Rule 13d-1(d)

\*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

Persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB control number.

SEC 1745 (12-02)

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names of reporting persons

i.r.s. identification no. of above persons  
(entities only)

1.

Perceptive Advisors LLC

2. check the appropriate box if a (a) £  
group\* (b) £  
sec use only

3.

citizenship or place of organization

4. Delaware, United States of America

**number of**  
**shares**  
**beneficially**  
**owned by**  
**each**  
**reporting**  
**person**  
**with:**

5. sole voting power	0
6. shared voting power	2,544,739
7. sole dispositive power	0
8. shared dispositive power	2,544,739

9. aggregate amount beneficially  
owned by each reporting person 2,544,739

10. check box if the aggregate amount in  
row (9) excludes certain shares (See  
Instructions) £

11. percent of class represented  
by amount in row (9) 5.64%

12. type of reporting person (See  
Instructions) **IA**

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names of reporting persons

i.r.s. identification no. of  
above persons (entities only)

13.

Joseph Edelman

14. check the appropriate box if a group\*  
 (a) £  
 (b) £  
 sec use only

15.

citizenship or place of  
organization

16.

United States of America

<b>number of shares</b>	17. sole voting power	0
	shared	
<b>beneficially owned by</b>	18. voting power	2,544,739
	shared	
<b>each reporting person with:</b>	19. dispositive power	0
	shared	
	20. dispositive power	2,544,739
21.	aggregate amount beneficially owned by each reporting person	2,544,739
22.	check box if the aggregate amount in row (9) excludes certain shares (See Instructions) £	
23.		5.64%

percent of class  
represented by  
amount in row (9)  
type of reporting  
**24.** person (See **IN**  
Instructions)

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Item 1.

(a) Name of Issuer: Infinity Pharmaceuticals, Inc.

(b) Address of Issuer's Principal Executive Offices: **780 Memorial Drive  
Cambridge,  
MA 02139**

Item 2.

(a) Name of Person Filing: **This Schedule 13G (the "Schedule") is being filed with respect to shares of Common Stock (as defined below) of Infinity Pharmaceuticals, Inc. (the "Issuer") which are beneficially owned by Perceptive Advisors LLC and Joseph Edelman (together, the "Reporting Persons"). See Item 4 below.**

(b) Address of Principal Business Office or, if none, Residence: **499 Park Avenue, 25<sup>th</sup> Floor  
New York, NY  
10022**

(c) Citizenship: Perceptive Advisors LLC is a Delaware limited liability company and Joseph Edelman is a United States Citizen.

(d) Title of Class of Securities: Common Stock

(e) CUSIP Number: 45665G303

If this statement is filed pursuant to Item 3. §§240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:

(a)  Broker or dealer registered under section 15 of the Act (15 U.S.C. 78o).

(b)  Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c).

(c)  Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c).

(d)  Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C 80a-8).

(e)  An investment adviser in accordance with §240.13d-1(b)(1)(ii)(E);

(f)  An employee benefit plan or endowment fund in accordance with §240.13d-1(b)(1)(ii)(F);

(g)  A parent holding company or control person in accordance with § 240.13d-1(b)(1)(ii)(G);

(h)  A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);

(i) [ ] A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3);

(j) [ ] Group, in accordance with §240.13d-1(b)(1)(ii)(J).

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Item 4. Ownership.

Provide the following information regarding the aggregate number and percentage of the class of securities of the issuer identified in Item 1.

(a) Amount beneficially owned: The Reporting Persons beneficially own 2,544,739 shares of Common Stock held by a private investment fund (the "Fund") to which Perceptive Advisors LLC serves as the investment manager. Mr. Edelman is the managing member of Perceptive Advisors LLC.

Perceptive Advisors LLC: 5.64%

Joseph Edelman: 5.64%

(b) Percent of class: The beneficial ownership percentages are based on the 45,117,221 outstanding shares of Common Stock of the Issuer, as disclosed on the Issuer's Prospectus filed with the SEC on December 14, 2012.

(c) Number of shares as to which the person has:

(i) Sole power to vote or to direct the vote: Perceptive Advisors LLC: 0

Joseph Edelman: 0

(ii) Shared power to vote or to direct the: Perceptive Advisors LLC: 2,544,739

vote:

Joseph Edelman: 2,544,739

Sole power  
to dispose or  
(iii) to direct the Perceptive Advisors LLC: 0  
disposition  
of:

Joseph Edelman: 0

Shared  
power to  
(iv) dispose or to Perceptive Advisors LLC:  
direct the 2,544,739  
disposition  
of:

Joseph Edelman: 2,544,739

**Item 5 Ownership of Five Percent or Less of a Class**

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following: £.

**Item 6 Ownership of More Than Five Percent on Behalf of Another Person**

The Fund described in Item 4 has the right to receive or the power to direct the receipt of dividends from, or the proceeds from, the sale of the securities held in its account. Filing of this statement by the Reporting Persons shall not be deemed an admission that they beneficially own the securities reported herein. The Reporting Persons expressly disclaim beneficial ownership of all securities reported herein.

**Item 7. Identification and Classification of the Subsidiary which Acquired the Security Being Reported on by the Parent Holding Company or Control Person.**

Not applicable.



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Identification  
and  
Item 8. Classification  
of Members  
of the Group.

Not applicable.

Notice of  
Item 9. Dissolution of  
Group.

Not applicable.

Item 10. Certification

The following  
certification  
shall be  
(a) included if the  
statement is  
filed pursuant  
to  
§240.13d-1(b):

By signing  
below I certify  
that, to the best  
of my  
knowledge and  
belief, the  
securities  
referred to  
above were  
acquired and  
are held in the  
ordinary course  
of business and  
were not  
acquired and  
are not held for

the purpose of  
or with the  
effect of  
changing or  
influencing the  
control of the  
issuer of the  
securities and  
were not  
acquired and  
are not held in  
connection  
with or as a  
participant in  
any transaction  
having that  
purpose or  
effect. S

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SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

February 14, 2013

Date

PERCEPTIVE ADVISORS LLC

/s/ Joseph Edelman

Signature

Joseph Edelman/Managing Member

Name/Title

February 14, 2013

Date

/s/ Joseph Edelman

Signature

Joseph Edelman

Name/Title

The original statement shall be signed by each person on whose behalf the statement is filed or his authorized representative. If the statement is signed on behalf of a person by his authorized representative other than an executive officer or general partner of the filing person, evidence of the representative's authority to sign on behalf of such person shall be filed with the statement, provided, however, that a power of attorney for this purpose which is already on file with the Commission may be incorporated by reference. The name and any title of each person who signs the statement shall be typed or printed beneath his signature.

*NOTE:* Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. *See* §240.13d-7 for other parties for whom copies are to be sent.

Attention: Intentional misstatements or omissions of fact constitute Federal criminal violations (See 18 U.S.C. 1001)

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