INFINITY PHARMACEUTICALS, INC. Form SC 13G/A January 28, 2013

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 13G

(Rule 13d-102)

INFORMATION TO BE INCLUDED IN STATEMENTS FILED PURSUANT TO RULES 13d-1 (b) AND (c) AND AMENDMENTS THERETO FILED PURSUANT TO 13d-2 (b)

(Amendment No. 1)*

Infinity Pharmaceuticals, Inc.

(Name of Issuer)

Common Stock

(Title of Class of Securities)

45665G 30 3

(CUSIP Number)

December 31, 2012

(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)
x 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 disclosures provided in a prior cover page. The information required on 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).

Page 1 of 11 Pages

CUSIP NO. 45665G 30 3 Page 2 of 11 Pages

1 NAMES OF REPORTING PERSONS.

I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)

Prospect Venture Partners II, L.P.

- 2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*
 - (a) " (b) x (1)
- 3 SEC USE ONLY
- 4 CITIZENSHIP OR PLACE OF ORGANIZATION

Delaware, United States of America

5 SOLE VOTING POWER

NUMBER OF **0 shares**

6 SHARED VOTING POWER

SHARES

BENEFICIALLY

0 shares of Common Stock

OWNED BY EACH

7 SOLE DISPOSITIVE POWER

REPORTING

PERSON

0 shares

WITH 8 SHARED DISPOSITIVE POWER

0 shares of Common Stock

9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

- 10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* "
- 11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

0.0%

12 TYPE OF REPORTING PERSON*

PN

(1) This Amendment No. 1 to the statement on Schedule 13G is filed by Prospect Venture Partners, L.P. (PVP), Prospect Venture Partners II, L.P. (PVP II), Prospect Management Co., L.L.C. (PMC), and Prospect Management Co. II, L.L.C. (PMC II), David Schnell (Schnell) and Russell C. Hirsch (Hirsch, and together with PVP, PVP II, PMC, PMC II and Schnell, collectively, the Prospect Entities). The Prospect Entities expressly disclaim status as a group for purposes of this Schedule 13G.

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CUSIP NO. 45665G 30 3 Page 3 of 11 Pages

1 NAMES OF REPORTING PERSONS

I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)

Prospect Management Co. II, L.L.C.

- 2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*
 - (a) " (b) x (1)
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Delaware, United States of America

5 SOLE VOTING POWER

NUMBER OF **0 shares**

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OWNED BY EACH

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PERSON

0 shares

WITH 8 SHARED DISPOSITIVE POWER

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12 TYPE OF REPORTING PERSON*

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CUSIP NO. 45665G 30 3 Page 4 of 11 Pages

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Delaware, United States of America

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NUMBER OF **0 shares**

6 SHARED VOTING POWER

SHARES

BENEFICIALLY

0 shares of Common Stock

OWNED BY EACH

7 SOLE DISPOSITIVE POWER

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PERSON

0 shares

WITH 8 SHARED DISPOSITIVE POWER

0 shares of Common Stock

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- 11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

0.0%
TYPE OF REPORTING PERSON*

PN

12

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CUSIP NO. 45665G 30 3 Page 5 of 11 Pages

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Prospect Management Co., L.L.C.

- 2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*
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- 4 CITIZENSHIP OR PLACE OF ORGANIZATION

Delaware, United States of America

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NUMBER OF **0 shares**

6 SHARED VOTING POWER

SHARES

BENEFICIALLY

0 shares of Common Stock

OWNED BY EACH

7 SOLE DISPOSITIVE POWER

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PERSON

0 shares

WITH 8 SHARED DISPOSITIVE POWER

0 shares of Common Stock

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12 TYPE OF REPORTING PERSON*

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CUSIP NO. 45665G 30 3 Page 6 of 11 Pages

1 NAMES OF REPORTING PERSONS

I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)

David Schnell

- 2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*
 - (a) " (b) x (1)
- 3 SEC USE ONLY
- 4 CITIZENSHIP OR PLACE OF ORGANIZATION

United States of America

5 SOLE VOTING POWER

NUMBER OF **0 shares of Common Stock**

6 SHARED VOTING POWER

SHARES

BENEFICIALLY

0 shares of Common Stock

OWNED BY EACH

7 SOLE DISPOSITIVE POWER

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PERSON

0 shares of Common Stock

WITH 8 SHARED DISPOSITIVE POWER

0 shares of Common Stock

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- 11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

0.0%
TYPE OF REPORTING PERSON*

IN

12

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CUSIP NO. 45665G 30 3 Page 7 of 11 Pages

1 NAMES OF REPORTING PERSONS.

I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)

Russell C. Hirsch

- 2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*
 - (a) " (b) x (1)
- 3 SEC USE ONLY
- 4 CITIZENSHIP OR PLACE OF ORGANIZATION

Delaware, United States of America

5 SOLE VOTING POWER

NUMBER OF **0 shares of Common Stock**

6 SHARED VOTING POWER

SHARES

BENEFICIALLY

0 shares of Common Stock

OWNED BY EACH

7 SOLE DISPOSITIVE POWER

REPORTING

PERSON

0 shares of Common Stock

WITH 8 SHARED DISPOSITIVE POWER

0 shares of Common Stock

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- 11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

0.0%
TYPE OF REPORTING PERSON*

IN

12

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Introductory Note: This Amendment No. 1 to the statement on Schedule 13G is filed on behalf of Prospect Venture Partners, L.P., a limited partnership organized under the laws of the State of Delaware (PVP), Prospect Venture Partners II, L.P., a limited partnership organized under the laws of the State of Delaware (PVP II), Prospect Management Co, L.L.C., a limited liability company organized under the laws of the State of Delaware (PMC), Prospect Management Co. II, L.L.C., a limited liability company organized under the laws of the State of Delaware (PMC II), David Schnell (Schnell) and Russell C. Hirsch (Hirsch), in respect of shares of Common Stock of Infinity Pharmaceuticals, Inc.

Item 1

- (a) Name of Issuer: Infinity Pharmaceuticals, Inc.
- (b) Address of Issuer s Principal Executive Offices: 780 Memorial Drive

Cambridge, Massachusetts 02139

Item 2

(a) Name of Person(s) Filing:

Prospect Venture Partners, L.P. (PVP)

Prospect Venture Partners II, L.P. (PVP II)

Prospect Management Co., L.L.C. (PMC)

Prospect Management Co. II, L.L.C. (PMC II)

David Schnell (Schnell)

Russell C. Hirsch (Hirsch)

(b) Address of Principal Business Office: c/o Prospect Venture Partners

435 Tasso Street, Suite 200 Palo Alto, California 94301

(c) Citizenship:

Entities: PVP - Delaware

PVP II - Delaware PMC - Delaware PMC II - Delaware

Individuals: Schnell - United States of America

Hirsch - United States of America

(d) Title of Class of Securities: Common Stock

(e) CUSIP Number: 45665G 30 3

Item 3 Not applicable.

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Item 4 Ownership.

The following information with respect to the ownership of the Common Stock of the Issuer by the persons filing this statement on Schedule 13G is provided as of December 31, 2012:

Prospect Entities	Shares Held Directly	Sole Voting Power	Shared Voting Power	Sole Dispositive Power	Shared Dispositive Power	Beneficial Ownership	Percentage of Class
Prospect Venture							
Partners, L.P.	0	0	0	0	0	0	0.00%
Prospect Venture							
Partners II, L.P.	0	0	0	0	0	0	0.00%
Prospect Management							
Co., L.L.C. (1)	0	0	0	0	0	0	0.00%
Prospect Management							
Co. II, L.L.C. (2)	0	0	0	0	0	0	0.00%
David Schnell (1)(2)	0	0	0	0	0	0	0.00%
Russell C. Hirsch (2)	0	0	0	0	0	0	0.00%

⁽¹⁾ Prospect Management Co., L.L.C. (PMC) serves as the general partner of Prospect Venture Partners, L.P., and owns no securities of the Issuer directly. Schnell serves as the Managing Director of PMC.

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: x

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

Not applicable.

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

Not applicable.

Item 8 Identification and Classification of Members of the Group.

Not applicable.

Item 9 Notice of Dissolution of Group.

Not applicable.

⁽²⁾ Prospect Management Co. II, L.L.C. (PMC II) serves as the general partner of Prospect Venture Partners II, L.P., and owns no securities of the Issuer directly. Schnell and Hirsch serve as Managing Directors of PMC II.

Item 10 Certification.

Not applicable.

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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.

Dated: January 28, 2013

PROSPECT VENTURE PARTNERS, L.P.

By: Prospect Management Co., L.L.C.

Its: General Partner

/s/ Lori Hoover-Simotas Lori Hoover-Simotas Attorney-in-Fact

PROSPECT MANAGEMENT CO., L.L.C.

/s/ Lori Hoover-Simotas Lori Hoover-Simotas Attorney-in-Fact

PROSPECT VENTURE PARTNERS II, L.P.

By: Prospect Management Co. II, L.L.C.

Its: General Partner

/s/ Lori Hoover-Simotas Lori Hoover-Simotas Attorney-in-Fact

PROSPECT MANAGEMENT CO. II, L.L.C.

/s/ Lori Hoover-Simotas Lori Hoover-Simotas Attorney-in-Fact

/s/ Lori Hoover-Simotas Lori Hoover-Simotas Attorney-in-Fact for David Schnell

attorney in ruet for Buviu Se

/s/ Lori Hoover-Simotas Lori Hoover-Simotas

Attorney-in-Fact for Russell C. Hirsch **Exhibit(s)**: A - Joint Filing Statement