ADVENT VENTURE PARTNERS LLP Form SC 13G February 14, 2007

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)

Under the Securities Exchange Act of 1934 (Amendment No.)*

Infinity Pharmaceuticals, Inc.

(Name of Issuer)

Common Stock

(Title of Class of Securities)

45665G303

(CUSIP Number)

September 12, 2006

(Date of Event Which Requires Filing of this Statement)

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

- o Rule 13d-1(b)
- o 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 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 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.

CUSIP No. 45665G303

Names of Reporting Persons. I.R.S. Identification Nos. of above persons (entities only)
 Advent Venture Partners LLP, Advent Private Equity Fund III Affiliates, Advent Management III L.P., Advent Private
 Equity Fund III A LTD Partnership, Advent Private Equity Fund III B LTD Partnership, Advent Private Equity Fund III
 C LTD Partnership, Advent Private Equity Fund III D LTD Partnership and Advent Private Equity Fund III GMBH &
 CO KG. Patrick Lee, who is a general partner of Advent Venture Partners LLP, is also a director of Infinity
 Pharmaceuticals. The foregoing entities and Patrick Lee are individually and collectively referred to here as the
 Reporting Person or the Reporting Persons.

N/A

- 2. Check the Appropriate Box if a Member of a Group (See Instructions)
 - (a) o (b) o
- 3. SEC Use Only
- 4. Citizenship or Place of Organization

Advent Venture Partners LLP (England), Advent Private Equity Fund III Affiliates (England), Advent Management III L.P. (Scotland), Advent Private Equity Fund III A LTD Partnership (England), Advent Private Equity Fund III B LTD Partnership (England), Advent Private Equity Fund III D LTD Partnership (England) and Advent Private Equity Fund III GMBH & CO KG (Germany).

Patrick Lee is a citizen of the United States.

5. Sole Voting Power

Advent Private Equity Fund III A Limited Partnership owns

568,663 shares.

Advent Private Equity Fund III B Limited Partnership owns

278,648 shares.

Advent Private Equity Fund III C Limited Partnership owns

77,728 shares.

Advent Private Equity Fund III D Limited Partnership owns

152,889 shares.

Advent Private Equity Fund III GMBH & CO KG owns

21,998 shares.

Advent Private Equity Fund III Affiliates owns 18,331 shares.

Advent Private Equity Fund III Limited Partnership owns 5,499 shares.

Number of Shares Beneficially Owned by Each Reporting Person With

Patrick Lee, who is a general partner of Advent Venture Partners LLP above and a director of the Company, has options to purchase a total of 28,125 shares of Common Stock at a per share price of \$15.04; provided however that as none of the shares underlying these options are vested, none of the shares subject to the option are deemed owned at this time by any of the Advent entities noted above or by Patrick Lee for beneficial reporting purposes.

6.

7.

Shared Voting Power

While each of the funds named in this filing disclaims beneficial ownership of the shares held by the others, except to the extent of any pecuniary interest therein, please note the following: Advent Venture Partners LLP owns 100% of Advent Limited. Advent Limited owns 100% of Advent Private Equity GmbH, which is the general partner of Advent Private Equity Fund III GMBH & CO KG. Advent Venture Partners LLP also owns 100% of Advent Management III Limited, which is the general partner of Advent Management III Limited Partnership, which is general partner of each of Advent Private Equity Fund III A Limited Partnership, Advent Private Equity Fund III B Limited Partnership, Advent Private Equity Fund III C Limited Partnership, Advent Private Equity Fund III D Limited Partnership and Advent Private Equity Fund III Affiliates Limited Partnership. In addition, Patrick Lee, who is a general partner of Advent Venture Partners LLP, is also a director of the Company. Voting and investment power over the shares held by each named fund may be deemed to be shared with Advent Venture Partners LLP and Patrick Lee due to the affiliate relationships described above.

Sole Dispositive Power

Advent Private Equity Fund III A Limited Partnership owns 568.663 shares.

Advent Private Equity Fund III B Limited Partnership owns 278,648 shares.

Advent Private Equity Fund III C Limited Partnership owns 77,728 shares.

Advent Private Equity Fund III D Limited Partnership owns 152.889 shares.

Advent Private Equity Fund III GMBH & CO KG owns 21,998 shares.

Advent Private Equity Fund III Affiliates owns 18,331 shares.

Advent Private Equity Fund III Limited Partnership owns 5.499 shares.

Patrick Lee, who is a general partner of Advent Venture Partners LLP and a director of the Company, has options to purchase a total of 28,125 shares of Common Stock at a per share price of \$15.04; provided however that as none of the shares underlying these options are vested, none of the shares subject to the option are deemed owned at this time by any of

the Advent entities noted above or by Patrick Lee for beneficial reporting purposes.

8.

Shared Dispositive Power Please see response in 7 above.

Aggregate Amount Beneficially Owned by Each Reporting Person
 Advent Private Equity Fund III A Limited Partnership owns 568,663 shares.

Advent Private Equity Fund III B Limited Partnership owns 278,648 shares.

Advent Private Equity Fund III C Limited Partnership owns 77,728 shares.

Advent Private Equity Fund III D Limited Partnership owns 152,889 shares.

Advent Private Equity Fund III GMBH & CO KG owns 21,998 shares.

Advent Private Equity Fund III Affiliates owns 18,331 shares.

Advent Private Equity Fund III Limited Partnership owns 5,499 shares.

Patrick Lee, who is a general partner of Advent Venture Partners LLP and a director of the Company, has options to purchase a total of 28,125 shares of Common Stock at a per share price of \$15.04; provided however that as none of the shares underlying these options are vested, none of the shares subject to the option are deemed owned at this time by any of the Advent entities noted above or by Patrick Lee for beneficial reporting purposes.

*Note that each Reporting Person disclaims beneficial ownership of the shares except to the extent of its pecuniary interest therein.

- 10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) o
- 11. Percent of Class Represented by Amount in Row (9) 5.77% in total, based on 19,471,694 shares of Common Stock outstanding according to Infinity Pharmaceuticals quarterly report on Form 10-Q for the period ended September 30, 2006.
- 12. Type of Reporting Person (See Instructions)
 All are PN, other than Patrick Lee, who is an IN.

2

^{*}Note that each Reporting Person disclaims beneficial ownership of the shares of the other except to the extent of any pecuniary interest therein.

^{*}Note that each Reporting Person disclaims beneficial ownership of the shares except to the extent of its pecuniary interest therein.

Item 1. Name of Issuer (a) Infinity Pharmaceuticals, Inc. (b) Address of Issuer s Principal Executive Offices 780 Memorial Drive Cambridge, Massachusetts 02139 Item 2. Name of Person Filing (a) Advent Venture Partners LLP, Advent Private Equity Fund III Affiliates, Advent Management III L.P., Advent Private Equity Fund III A LTD Partnership, Advent Private Equity Fund III B LTD Partnership, Advent Private Equity Fund III C LTD Partnership, Advent Private Equity Fund III D LTD Partnership and Advent Private Equity Fund III GMBH & CO KG. Patrick Lee, who is a general partner of Advent Venture Partners LLP, is also a director of Infinity Pharmaceuticals. *Note that each Reporting Person disclaims beneficial ownership of the shares of the other except to the extent of any pecuniary interest therein. Address of Principal Business Office or, if none, Residence (b) Advent Venture Partners, LLP 25 Buckingham Gate London SW1E 6LD Advent Private Equity Fund III Affiliates 25 Buckingham Gate London SW1E 6LD Advent Management III L. P. 50 Lothian Road, Festival Square Edinburgh EH3 9WJ Advent Private Equity Fund III A LTD Partnership 25 Buckingham Gate London SW1E 6LD

Advent Private Equity Fund III B LTD Partnership

25 Buckingham Gate

London SW1E 6LD

Advent Private Equity Fund III C LTD Partnership

25 Buckingham Gate

London SW1E 6LD

Advent Private Equity Fund III D LTD Partnership

25 Buckingham Gate

London SW1E 6LD

Advent Private Equity Fund III GMBH & CO KG

Theresienstrasse 6

Munich 80333

Germany

Patrick Lee

c/o Advent Venture Partners LLP

25 Buckingham Gate

London SW1E 6LD

Citizenship

The citizenship of each of the funds is as follows:

Advent Venture Partners LLP (England), Advent Private Equity Fund III Affiliates (England), Advent Management III L.P. (Scotland), Advent Private Equity Fund III A LTD Partnership (England), Advent Private Equity Fund III B LTD Partnership (England), Advent Private Equity Fund III C LTD Partnership (England), Advent Private Equity Fund III D LTD Partnership (England) and Advent Private Equity Fund III GMBH & CO KG (Germany).

Patrick Lee is a citizen of the United States.

Title of Class of Securities

Common Stock \$0.001 par value

(e)

(d)

(c)

CUSIP Number 45665G303

3

Item 3.	If this statement is filed pur	rsuant to §§240.13d-1(b) or	r 240.13d-2(b) or (c), check whether the person filing is a:
	(a)	0	Broker or dealer registered under section 15 of the Act (15 U.S.C. 78o).
	(b)	o	Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c).
	(c)	0	Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c).
	(d)	0	Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C 80a-8).
	(e)	0	An investment adviser in accordance with §240.13d-1(b)(1)(ii)(E);
	(f)	0	An employee benefit plan or endowment fund in accordance with
			§240.13d-1(b)(1)(ii)(F);
	(g)	0	A parent holding company or control person in accordance with §
			240.13d-1(b)(1)(ii)(G);
	(h)	o	A savings associations as defined in Section 3(b) of the Federal Deposit
			Insurance Act (12 U.S.C. 1813);
	(i)	0	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)	0	Group, in accordance with §240.13d-1(b)(1)(ii)(J).

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:

1,123,756 in total which is held as follows:

Advent Private Equity Fund III A Limited Partnership owns 568,663 shares.

Advent Private Equity Fund III B Limited Partnership owns 278,648 shares.

Advent Private Equity Fund III C Limited Partnership owns 77,728 shares.

Advent Private Equity Fund III D Limited Partnership owns 152,889 shares.

Advent Private Equity Fund III GMBH & CO KG owns 21,998 shares.

Advent Private Equity Fund III Affiliates owns 18,331 shares.

Advent Private Equity Fund III Limited Partnership owns 5,499 shares.

Patrick Lee, who is a general partner of Advent Venture Partners LLP and a director of the Company, has options to purchase a total of 28,125 shares of Common Stock at a per share price of \$15.04; provided however that as none of the shares underlying these options are vested, none of the shares subject to the option are deemed owned at this time by any of the Advent entities noted above or by Patrick Lee for beneficial reporting purposes.

(b) Percent of class:

5.77% in total, based on 19,471,694 shares of Common Stock outstanding according to Infinity Pharmaceuticals quarterly report on Form 10-Q for the period ended September 30, 2006.

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

(i) Sole power to vote or to direct the vote

Advent Private Equity Fund III A Limited Partnership owns 568.663 shares.

Advent Private Equity Fund III B Limited Partnership owns 278,648 shares.

Advent Private Equity Fund III C Limited Partnership owns 77,728 shares.

Advent Private Equity Fund III D Limited Partnership owns 152,889 shares.

^{*}Note that each Reporting Person disclaims beneficial ownership of the shares except to the extent of any pecuniary interest therein.

(ii)

Advent Private Equity Fund III GMBH & CO KG owns 21,998 shares

Advent Private Equity Fund III Affiliates owns 18,331 shares.

Advent Private Equity Fund III Limited Partnership owns 5,499 shares.

Patrick Lee, who is a general partner of Advent Venture Partners LLP and a director of the Company, has options to purchase a total of 28,125 shares of Common Stock at a per share price of \$15.04; provided however that as none of the shares underlying these options are vested, none of the shares subject to the option are deemed owned at this time by any of the Advent entities noted above or by Patrick Lee for beneficial reporting purposes.

Shared power to vote or to direct the vote

While each of the funds named in this filing disclaims beneficial ownership of the shares held by the others, except to the extent of any pecuniary interest therein, please note the following: Advent Venture Partners LLP owns 100% of Advent Limited. Advent Limited owns 100% of Advent Private Equity GmbH, which is the general partner of Advent Private Equity Fund III GMBH & CO KG. Advent Venture Partners LLP also owns 100% of Advent Management III Limited, which is the general partner of Advent Management III Limited Partnership, which is general partner of each of Advent Private Equity Fund III A Limited Partnership, Advent Private Equity Fund III B Limited Partnership, Advent Private Equity Fund III C Limited Partnership, Advent Private Equity Fund III D Limited Partnership and Advent Private Equity Fund III Affiliates Limited Partnership. In addition, Patrick Lee, who is a general partner of Advent Venture Partners LLP, is also a director of Infinity Pharmaceuticals. Voting and investment power over the shares held by each named fund may be deemed to be shared with Advent Venture Partners LLP and Patrick Lee due to the affiliate relationships described above.

(iii) Sole power to dispose or to direct the disposition of

Advent Private Equity Fund III A Limited Partnership owns 568,663 shares.

Advent Private Equity Fund III B Limited Partnership owns 278.648 shares.

Advent Private Equity Fund III C Limited Partnership owns 77,728 shares.

Advent Private Equity Fund III D Limited Partnership owns 152,889 shares.

Advent Private Equity Fund III GMBH & CO KG owns 21,998 shares.

^{*}Note that each Reporting Person disclaims beneficial ownership of the shares of the other except to the extent of any pecuniary interest therein.

Advent Private Equity Fund III Affiliates owns 18,331 shares.

Advent Private Equity Fund III Limited Partnership owns 5,499 shares.

Patrick Lee, who is a general partner of Advent Venture Partners LLP and a director of the Company, has options to purchase a total of 28,125 shares of Common Stock at a per share price of \$15.04; provided however that as none of the shares underlying these options are vested, none of the shares subject to the option are deemed owned at this time by any of the Advent entities noted above or by Patrick Lee for beneficial reporting purposes.

*Note that each Reporting Person disclaims beneficial ownership of the shares of the other except to the extent of any pecuniary interest therein.

(iv) Shared power to dispose or to direct the disposition of

Please see response to Item 4(c)(iii) above.

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 O.

Not Applicable.

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 or Control Person

Not Applicable.

Item 8. Identification and Classification of Members of the Group

Not Applicable.

Item 9. Notice of Dissolution of Group

Not Applicable.

Item 10. Certification

Not Applicable.

5

SIGNATURE

6

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.

/s/Patrick Lee General Partner of Advent Venture Partners LLP	14 February 2007
/s/Patrick Lee General Partner of Advent Venture Partners LLP acting in its capacity as Manager of Advent Private Equity Fund III Affiliates	14 February 2007
/s/Patrick Lee General Partner of Advent Venture Partners LLP acting in its capacity as Manager of Advent Management III L.P.	14 February 2007
/s/Patrick Lee General Partner of Advent Venture Partners LLP acting in its capacity as Manager of Advent Private Equity Fund III A LTD Partnership	14 February 2007
/s/Patrick Lee General Partner of Advent Venture Partners LLP acting in its capacity as Manager of Advent Private Equity Fund III B LTD Partnership	14 February 2007
/s/Patrick Lee General Partner of Advent Venture Partners LLP acting in its capacity as Manager of Advent Private Equity Fund III C LTD Partnership	14 February 2007
/s/Patrick Lee General Partner of Advent Venture Partners LLP acting in its capacity as Manager of Advent Private Equity Fund III D LTD Partnership	14 February 2007
/s/Patrick Lee General Partner of Advent Venture Partners LLP acting in its capacity as Manager of Advent Private Equity Fund III GMBH & CO KG	14 February 2007
/s/Patrick Lee Patrick Lee	14 February 2007