

INFINITY PHARMACEUTICALS, INC.

Form 4

October 29, 2008

FORM 4

**UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

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 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

(Print or Type Responses)

1. Name and Address of Reporting Person *
Holtzman Steven H

(Last) (First) (Middle)

C/O INFINITY
PHARMACEUTICALS, INC., 780
MEMORIAL DRIVE

(Street)

CAMBRIDGE, MA 02139

(City) (State) (Zip)

2. Issuer Name and Ticker or Trading Symbol
INFINITY PHARMACEUTICALS,
INC. [INFI]

3. Date of Earliest Transaction
(Month/Day/Year)
10/27/2008

4. If Amendment, Date Original Filed(Month/Day/Year)

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)
 Director 10% Owner
 Officer (give title below) Other (specify below)
CEO

6. Individual or Joint/Group Filing(Check Applicable Line)
 Form filed by One Reporting Person
 Form filed by More than One Reporting Person

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 Ownership (Instr. 4) |
|---------------------------------|--------------------------------------|--|--------------------------------|---|---|--|-----------------------------------|
| | | | Code | V | Amount or Price (A) or (D) | | |
| Common Stock | 10/27/2008 | | M | | 55,257 (1) \$ 2.04 | A | D |
| Common Stock | 10/27/2008 | | M | | 331 \$ 3.48 | A | D |
| Common Stock | 10/27/2008 | | M | | 33,154 (2) \$ 3.48 | A | D |

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

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SEC 1474 (9-02)

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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. Amount or Number of Shares |
|--|--|--------------------------------------|--|--------------------------------|---|--|---|-------------------------------|
| Stock Option (right to buy) | \$ 2.04 | 10/27/2008 | | M | 55,257 (3) | (4) 05/10/2015 | Common Stock | 55,257 |
| Stock Option (right to buy) | \$ 3.48 | 10/27/2008 | | M | 331 | (5) 03/31/2016 | Common Stock | 331 |
| Stock Option (right to buy) | \$ 3.48 | 10/27/2008 | | M | 33,154 | (6) 03/31/2016 | Common Stock | 33,154 |

Reporting Owners

| Reporting Owner Name / Address | Relationships | | | |
|--|---------------|-----------|---------|-------|
| | Director | 10% Owner | Officer | Other |
| Holtzman Steven H C/O INFINITY PHARMACEUTICALS, INC. 780 MEMORIAL DRIVE CAMBRIDGE, MA 02139 | X | | CEO | |

Signatures

/s/ Steven H.
Holtzman

10/29/2008

**Signature of
Reporting Person

Date

Explanation of Responses:

* 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).

(1) The shares were acquired upon the exercise of a stock option which was subject to a right of early exercise, pursuant to which the optionee could exercise unvested stock options and receive, in lieu thereof, shares of restricted stock that are subject to a right of repurchase by Infinity Pharmaceuticals, Inc. ("Infinity") that lapses in accordance with the vesting schedule of the original option. Of such 55,257 shares, 51,803 shares were vested as of the date of exercise of the stock option and the remaining 3,454 shares are subject to a right of repurchase by Infinity that lapses in accordance with the vesting schedule of the original option, which schedule was as follows: the option vested annually in equal installments for four years, beginning on January 31, 2005.

(2) The shares were acquired upon the exercise of a stock option which was subject to a right of early exercise, pursuant to which the optionee could exercise unvested stock options and receive, in lieu thereof, shares of restricted stock that are subject to a right of repurchase by Infinity that lapses in accordance with the vesting schedule of the original option. Of such 33,154 shares, 22,794 shares were vested as of the date of exercise of the stock option and the remaining 10,360 shares are subject to a right of repurchase by Infinity that lapses in accordance with the vesting schedule of the original option, which schedule was as follows: the option vested annually in equal installments for four years, beginning on February 1, 2006.

(3) The stock option was inadvertently previously reported as a stock option to buy 55,256 shares, on a Form 4 filed on September 13, 2006.

(4) The stock option was subject to a right of early exercise, pursuant to which the optionee could exercise unvested stock options and receive, in lieu thereof, shares of restricted stock that are subject to a right of repurchase by Infinity that lapses in accordance with the vesting schedule of the original option. The optionee exercised the stock option in full. The vesting schedule of the original option was as follows: the option vested annually in equal installments for four years, beginning on January 31, 2005. As such, as of the date of exercise, the option was vested as to 51,803 shares.

(5) The option vested in equal monthly installments for 1 year, beginning on February 1, 2006.

(6) The stock option was subject to a right of early exercise, pursuant to which the optionee could exercise unvested stock options and receive, in lieu thereof, shares of restricted stock that are subject to a right of repurchase by Infinity that lapses in accordance with the vesting schedule of the original option. The optionee exercised the stock option in full. The vesting schedule of the original option was as follows: the option vested annually in equal installments for four years, beginning on February 1, 2006. As such, as of the date of exercise, the option was vested as to 22,794 shares.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure.

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