

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

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

| | | | | | | | | |
|---|---------|----------|---|--|--|---|--|--|
| 1. Name and Address of Reporting Person* TRAUTMAN JAY K | | | 2. Issuer Name and Ticker or Trading Symbol CYTOKINETICS INC [CYTK] | | | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director 10% Owner <input checked="" type="checkbox"/> Officer (give title below) Other (specify below) VP, Research | | |
| (Last) | (First) | (Middle) | 3. Date of Earliest Transaction (Month/Day/Year) 03/14/2007 | | | | | |
| 280 EAST GRAND AVENUE | | | 4. If Amendment, Date of Original Filed (Month/Day/Year) | | | 6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person Form filed by More than One Reporting Person | | |
| (Street) SOUTH SAN FRANCISCO CA 94080 | | | | | | | | |
| (City) (State) (Zip) | | | | | | | | |

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 Indirect Beneficial Ownership (Instr. 4) |
|---------------------------------|--------------------------------------|--|--------------------------------|---|---|------------|---|--|---|
| | | | Code | V | Amount | (A) or (D) | | | |
| Common Stock | | | | | | | 19,971 | D | |

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 Securities Underlying Derivative Security (Instr. 3 and 4) | 8. Price of Derivative Security (Instr. 5) | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4) | 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) | |
|--|--|--------------------------------------|--|--------------------------------|---|--|-----|--|-----------------|---|--|--|---|--|-------|
| | | | | Code | V | (A) | (D) | Date Exercisable | Expiration Date | | | | | | Title |
| Incentive Stock Option (right to buy) | \$6.81 | 03/14/2007 | | A | | 12,500 | | 04/01/2007 ⁽¹⁾ | 03/14/2017 | Common Stock | 12,500 | \$0 | 12,500 | D | |
| Non-Qualified Stock Option (right to buy) | \$6.81 | 03/14/2007 | | A | | 27,500 | | 04/01/2007 ⁽¹⁾ | 03/14/2017 | Common Stock | 27,500 | \$0 | 27,500 | D | |
| Incentive Stock Option (right to buy) | \$1.2 | | | | | | | 07/10/2002 ⁽²⁾ | 07/10/2012 | Common Stock | 17,500 | | 17,500 | D | |
| Incentive Stock Option (right to buy) | \$1.2 | | | | | | | 05/21/2003 ⁽³⁾ | 05/21/2013 | Common Stock | 12,500 | | 12,500 | D | |
| Incentive Stock Option (right to buy) | \$6.5 | | | | | | | 04/08/2004 ⁽⁴⁾ | 03/08/2014 | Common Stock | 25,000 | | 25,000 | D | |

**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 Securities Underlying Derivative Security (Instr. 3 and 4) | | 8. Price of Derivative Security (Instr. 5) | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4) | 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) |
|--|--|--------------------------------------|--|--------------------------------|---|--|-----|--|-----------------|---|----------------------------|--|--|---|--|
| | | | | Code | V | (A) | (D) | Date Exercisable | Expiration Date | Title | Amount or Number of Shares | | | | |
| Incentive Stock Option (right to buy) | \$6.59 | | | | | | | 04/11/2005 ⁽⁵⁾ | 04/11/2015 | Common Stock | 30,000 | | 30,000 | D | |
| Incentive Stock Option (right to buy) | \$6.88 | | | | | | | 01/07/2006 ⁽⁶⁾ | 12/15/2015 | Common Stock | 21,504 | | 21,504 | D | |
| Incentive Stock Option (right to buy) | \$7.15 | | | | | | | 03/01/2006 ⁽⁷⁾ | 03/01/2016 | Common Stock | 2,500 | | 2,500 | D | |
| Non-Qualified Stock Option (right to buy) | \$6.88 | | | | | | | 01/07/2006 ⁽⁶⁾ | 12/15/2015 | Common Stock | 43,496 | | 43,496 | D | |
| Non-Qualified Stock Option (right to buy) | \$7.15 | | | | | | | 03/01/2006 ⁽⁷⁾ | 03/01/2016 | Common Stock | 37,500 | | 37,500 | D | |

Explanation of Responses:

- When the ISO and NQ dated 03/14/2007 are combined for a total grant of 40,000 shares, the option shall vest and become exercisable as to 833 shares on 04/01/07 and the balance of 39,167 divided into equal monthly installments thereafter such that the option shall be 100% vested on 03/01/11.
- This option is immediately exercisable upon grant and shall vest as to 15,625 shares on 06/03/03 and the balance of 46,875 divided into equal monthly installments thereafter such that the option shall be 100% vested on 06/03/06.
- This option is immediately exercisable upon grant and shall vest as to 573 shares on 04/01/03 and the balance of 26,927 divided into equal monthly installments thereafter such that the option shall be 100% vested on 03/01/07.
- This option shall vest and become exercisable as to 521 shares on 04/08/04 and the balance of 24,479 divided into equal monthly installments thereafter such that the option shall be 100% vested on 03/08/08.
- This option shall vest and become exercisable as to 30,000 shares divided into equal monthly installments such that the option shall be 100% vested on 03/01/2009.
- When the ISO and NQ dated 12/15/05 are combined for a total grant of 65,000 shares, the option shall vest and become exercisable as to 65,000 shares divided into equal monthly installments such that the option shall be 100% vested on 12/07/2009.
- When the ISO and NQ dated 03/01/2006 are combined for a total grant of 40,000 shares, the option shall vest and become exercisable as to 40,000 shares divided into equal monthly installments such that the option shall be 100% vested on 03/01/2010.

Jay K. Trautman, Ph.D. 03/16/2007

** Signature of Reporting Person Date

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 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).

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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