## FORM 4

## UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

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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). П

## 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*<br>TRAUTMAN JAY K           |  |       |          |          |                                 | 2. Issuer Name and Ticker or Trading Symbol<br><u>CYTOKINETICS INC</u> [ CYTK ] |                    |       |                            |   |                  |   |                 |                        | 5. Relationship of Reporting Person(s) to Issuer<br>(Check all applicable) |  |                                |  |  |  |
|--|--|-------|----------|----------|---------------------------------|---|--------------------|-------|----------------------------|---|------------------|---|-----------------|------------------------|--|--|--------------------------------|--|--|--|
| (Last) (First) (Middle)  |  |       |          |          |                                 | 3. Date of Earliest Transaction (Month/Day/Year)<br>05/10/2006                  |                    |       |                            |   |                  |   |                 |                        | Direct<br>X Office<br>below  | 10% Owner<br>Other (specify<br>below)  |                                | specify  |  |  |
| 280 EAST GRAND AVENUE  |  |       |          |          |                                 |   |                    |       |                            |   |                  |   |                 |                        |  | VP, R  | esearch                        |  |  |  |
|  |  |       |          |          | - 4. lf /                       | 4. If Amendment, Date of Original Filed (Month/Day/Year)                        |                    |       |                            |   |                  |   |                 |                        | 6. Individual or Joint/Group Filing (Check Applicable<br>Line)             |  |                                |  |  |  |
| (Street)<br>SOUTH  | SAN C  |       | 04000    |          |                                 |   |                    |       |                            |   |                  |   |                 |                        | X Form filed by One Reporting Person                                       |  |                                |  |  |  |
| FRANC  | ISCO C.  | A     | 94080    |          | -                               |   |                    |       |                            |   |                  |   |                 |                        | Form filed by More than One Reporting<br>Person                            |  |                                |  |  |  |
| (City)   | (S   | tate) | (Zip)    |          |                                 |   |                    |       |                            |   |                  |   |                 |                        |  |  |                                |  |  |  |
|  |  | Tab   | le I - N |          |                                 |   |                    |       | cquired, I                 | Disp  | osed             | of, or E  | Sene            | ficia                  | Ily Owne   | d  |                                |  |  |  |
| 1. Title of Security (Instr. 3)<br>2. Transact<br>Date<br>(Month/Day |  |       |          |          |                                 | Execution Date,   |                    |       | Code (Instr. and 5)        |   |                  |   |                 | (Instr. 3, 4 S         |  | 5. Amount of<br>Securities<br>Beneficially<br>Owned<br>Following   |                                | 6. Ownership<br>Form: Direct<br>(D) or<br>Indirect (I)<br>(Instr. 4) |  |  |
|  |  |       |          |          |                                 |   |                    |       | Code                       | v   | Amoun            | Amount (A) or<br>(D)  |                 | Price                  | Report<br>Transa   |  | (1130.1.4)                     |  | (Instr. 4)   |  |
| Commor   | 2006   | .006  |          |          | S <sup>(1)</sup>                |   | 1,00               | 00    | D                          | <b>\$7.</b> 8   | 7 2              | 8,054   | D               |                        |  |  |                                |  |  |  |
|  |  | т     | able II  | - Deriva | tive Souts. c                   | ecu<br>alls   | rities<br>. wai    | s Acc | quired, Di<br>s, options   | spo<br>S. C   | sed of           | , or Be<br>ble se   | nefi<br>curit   | cially<br>ties)        | / Owned  |  |                                |  |  |  |
| 1. Title of<br>Derivative<br>Security<br>(Instr. 3)                  | I. Title of<br>Derivative<br>Security or Exercise (Month/Day/Year) |       |          |          | 4.<br>Transac<br>Code (li<br>8) | tion  | 5. 6.<br>Number Ex |       | 6. Date Exer<br>Expiration | 5. Date Exercisable and<br>Expiration Date<br>Month/Day/Year) |                  | 7. Title and<br>Amount of<br>Securities<br>Underlying<br>Derivative<br>Security (Instr.<br>and 4) |                 |                        | 8. Price<br>of<br>Derivative<br>Security<br>(Instr. 5)                     | 9. Number<br>derivative<br>Securities<br>Beneficiall<br>Owned<br>Following<br>Reported<br>Transactio<br>(Instr. 4) | y Dire<br>or I<br>(I) (I<br>4) | Ownership<br>Form:<br>Direct (D)<br>or Indirect<br>(I) (Instr.<br>4) | 11. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4) |  |
|  |  |       |          |          | Code                            | v   | (A)                | (D)   | Date<br>Exercisable        |   | cpiration<br>ate | Title   | or<br>Nu<br>of  | nount<br>Imber<br>ares |  |  |                                |  |  |  |
| Incentive<br>Stock<br>Option<br>(right to<br>buy)                    | \$1.2  |       |          |          |                                 |   |                    |       | 07/10/2002 <sup>(2</sup>   | 0   | 7/10/2012        | Commo<br>Stock  | <sup>1</sup> 17 | ,500                   |  | 17,500   |                                | D  |  |  |
| Incentive<br>Stock<br>Option<br>(right to<br>buy)                    | \$1.2  |       |          |          |                                 |   |                    |       | 05/21/2003 <sup>(3</sup>   | ) 0:  | 5/21/2013        | Commo<br>Stock  | <sup>1</sup> 12 | 2,500                  |  | 12,500   |                                | D  |  |  |
| Incentive<br>Stock<br>Option<br>(right to<br>buy)                    | \$6.5  |       |          |          |                                 |   |                    |       | 04/08/2004 <sup>(4</sup>   | •) 03   | 8/08/2014        | Commo<br>Stock  | <sup>1</sup> 25 | ,000                   |  | 25,000   |                                | D  |  |  |
| Incentive<br>Stock<br>Option<br>(right to<br>buy)                    | \$6.59   |       |          |          |                                 |   |                    |       | 04/11/2005 <sup>(5</sup>   | ) 02  | 1/11/2015        | Commo<br>Stock  | <sup>1</sup> 30 | ),000                  |  | 30,000   |                                | D  |  |  |
| Incentive<br>Stock<br>Option<br>(right to<br>buy)                    | \$6.88   |       |          |          |                                 |   |                    |       | 01/07/2006 <sup>(6</sup>   | ) 12  | 2/15/2015        | Commo<br>Stock  | <sup>1</sup> 21 | ,504                   |  | 21,504   |                                | D  |  |  |

| Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned   (e.g., puts, calls, warrants, options, convertible securities) |   |  |   |                                   |   |     |     |  |                    |   |  |  |  |   |  |
|--|---|--|---|-----------------------------------|---|-----|-----|--|--------------------|---|--|--|--|---|--|
| 1. Title of<br>Derivative<br>Security<br>(Instr. 3)  | 2.<br>Conversion<br>or Exercise<br>Price of<br>Derivative<br>Security | 3. Transaction<br>Date<br>(Month/Day/Year) | 3A. Deemed<br>Execution Date,<br>if any<br>(Month/Day/Year) | 4.<br>Transaction<br>Code (Instr. |   | 5.  |     | 6. Date Exercisable and<br>Expiration Date<br>(Month/Day/Year) |                    | 7. Title and<br>Amount of<br>Securities<br>Underlying<br>Derivative<br>Security (Instr. 3<br>and 4) |  | 8. Price<br>of<br>Derivative<br>Security<br>(Instr. 5) | 9. Number of<br>derivative<br>Securities<br>Beneficially<br>Owned<br>Following<br>Reported<br>Transaction(s)<br>(Instr. 4) | 10.<br>Ownership<br>Form:<br>Direct (D)<br>or Indirect<br>(I) (Instr.<br>4) | 11. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4) |
|  |   |  |   | Code                              | v | (A) | (D) | Date<br>Exercisable  | Expiration<br>Date | Title   | Amount<br>or<br>Number<br>of<br>Shares |  |  |   |  |
| Incentive<br>Stock<br>Option<br>(right to<br>buy)  | \$7.15  |  |   |                                   |   |     |     | 03/01/2006 <sup>(7)</sup>                                      | 03/01/2016         | Common<br>Stock   | 2,500                                  |  | 2,500  | D   |  |
| Non-<br>Qualified<br>Stock<br>Option<br>(right to<br>buy)  | <b>\$6.88</b>   |  |   |                                   |   |     |     | 01/07/2006 <sup>(6)</sup>                                      | 12/15/2015         | Common<br>Stock   | 43,496                                 |  | 43,496   | D   |  |
| Non-<br>Qualified<br>Stock<br>Option<br>(right to<br>buy)  | \$7.15  |  |   |                                   |   |     |     | 03/01/2006 <sup>(7)</sup>                                      | 03/01/2016         | Common<br>Stock   | 37,500                                 |  | 37,500   | D   |  |

## Explanation of Responses:

1. The sales reported in this Form 4 were effected pursuant to a Rule 10b5-1 trading plan adopted by the reporting person on November 10, 2005.

2. 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.

3. 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.

4. 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.

5. 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.

6. 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.

7. 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.

<u>Jay K. Trautman</u>

\*\* Signature of Reporting Person Date

05/12/2006

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.

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 Number.