FORM 4

## **UNITED STATES SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

| OMB APPROVAL             |           |  |  |  |  |  |  |  |
|--------------------------|-----------|--|--|--|--|--|--|--|
| OMB Number:              | 3235-0287 |  |  |  |  |  |  |  |
| Estimated average burden |           |  |  |  |  |  |  |  |
| hours per response:      | 0.5       |  |  |  |  |  |  |  |

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* SPUDICH JAMES A                            |        |         |                                 |            | <u>CY</u>       | 2. Issuer Name and Ticker or Trading Symbol CYTOKINETICS INC [ CYTK ] |                                     |   |                          |                         |                  |                                |  |  | Relationship of Reporting Person(s) to Issuer (Check all applicable)     X Director 10% Owner |   |  |                       |            |  |  |
|---|--------|---------|---------------------------------|------------|-----------------|---|-------------------------------------|---|--------------------------|-------------------------|------------------|--------------------------------|--|--|---|---|--|-----------------------|------------|--|--|
| (Last)  | ,      | · ·     | Middle)                         |            |                 | 3. Date of Earliest Transaction (Month/Day/Year) 04/04/2006           |                                     |   |                          |                         |                  |                                |  |  | Office<br>below   | icer (give title<br>ow)   |  | Other (specify below) |            |  |  |
| 280 EAST GRAND AVENUE   |        |         |                                 |            |                 | 4. If Amendment, Date of Original Filed (Month/Day/Year)              |                                     |   |                          |                         |                  |                                |  |  | 6. Individual or Joint/Group Filing (Check Applicable Line)                                   |   |  |                       |            |  |  |
| (Street) SOUTH SAN FRANCISCO CA 94080   |        |         |                                 |            |                 |   |                                     |   |                          |                         |                  |                                |  |  |   | X Form filed by One Reporting Person Form filed by More than One Reporting Person |  |                       |            |  |  |
| (City)  | (Si    | tate) ( | Zip)                            |            |                 |   |                                     |   |                          |                         |                  |                                |  |  |   |   |  |                       |            |  |  |
|   |        |         | le I - N                        |            |                 |   |                                     |   | cquired,                 | Dis                     | <u> </u>         |                                |  |  |   |   |  |                       |            |  |  |
| Date  |        |         | 2. Transac<br>Date<br>(Month/Da |            | Execution Date, |   | 3.<br>Transact<br>Code (In<br>r) 8) |   |                          | rities Acc<br>ed Of (D) |                  | 3, 4 Securi<br>Benefi<br>Owned |  | ially  | 6. Ownership<br>Form: Direct<br>(D) or<br>Indirect (I)<br>(Instr. 4)                          |   | 7. Nature<br>of Indirect<br>Beneficial<br>Ownership                |                       |            |  |  |
|   |        |         |                                 |            |                 |   |                                     |   | Code                     | v                       | Amount           |                                | (A) or<br>(D)  |  | Report<br>Transa  | ollowing<br>eported<br>ransaction(s)<br>nstr. 3 and 4)                            |  | 1. 4)                 | (Instr. 4) |  |  |
| Common  | Stock  |         |                                 | 04/04/2006 |                 | 06  |                                     |   | S <sup>(1)</sup>         |                         | 100              | I                              | ) (  | 57.65  | 23  | 5,500   | D  |                       |            |  |  |
| Common  | Stock  |         |                                 | 04/04/2006 |                 |   |                                     |   | S <sup>(1)</sup>         |                         | 100              | I                              | ) (  | 57.63  | 23  | 5,400   | D  |                       |            |  |  |
| Common Stock 04   |        |         |                                 | 04/04/2    | 2006            |   |                                     |   | S <sup>(1)</sup>         |                         | 497              | 7 D \$                         |  | <b>7.6</b> 1   | 23  | 234,903   |  | D                     |            |  |  |
| Common Stock 04/  |        |         |                                 |            | 2006            |   |                                     | <b>S</b> <sup>(1)</sup>                 |                          | 200                     | I                |                                | \$7.6  | 23   | 234,703   |   | D  |                       |            |  |  |
| Common Stock 04/04/2  |        |         |                                 |            | 2006            | 006   |                                     |   | S <sup>(1)</sup>         |                         | 500              | ) I                            | ) (  | <b>57.5</b> 9  | 23  | 4,203   |  | D                     |            |  |  |
| Common Stock 04/04/20   |        |         |                                 |            | 2006            | 006   |                                     |   | S <sup>(1)</sup>         |                         | 803              | I                              | \$   | 7.602  | 02 233,400  |   | D  |                       |            |  |  |
|   |        | T       | able II                         |            |                 |   |                                     |   | quired, Di<br>s, option  |                         |                  |                                |  |  | Owned   |   |  |                       |            |  |  |
| 1. Title of Derivative Conversion Date Security Or Exercise (Month/Day/Year) if any |        |         |                                 |            |                 |   |                                     | 6. Date Exe<br>Expiration<br>(Month/Day | Date                     | Amount of               |                  |                                | 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) | Ownershi<br>Form:<br>Direct (D)<br>or Indirec<br>(I) (Instr.<br>4)                            |   | 11. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4) |                       |            |  |  |
|   |        |         |                                 |            | Code            | v   | (A)                                 | (D)                                     | Date<br>Exercisable      | l e                     | xpiration<br>ate | Title                          | Amo<br>or<br>Num<br>of<br>Shar                         | ber  |   |   |  |                       |            |  |  |
| Non-<br>Qualified<br>Stock<br>Option<br>(right to<br>buy)                           | \$1.2  |         |                                 |            |                 |   |                                     |   | 07/10/2002 <sup>()</sup> | 2) 0                    | 7/10/2012        | Common<br>Stock                | 10,0   | 000  |   | 10,000  |  | D                     |            |  |  |
| Non-<br>Qualified<br>Stock<br>Option<br>(right to<br>buy)                           | \$5.55 |         |                                 |            |                 |   |                                     |   | 05/19/2005               | 5 0                     | 5/19/2015        | Common<br>Stock                | 7,5  | 00   |   | 7,500   |  | 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 2, 2005.
- 2. This option is immediately exercisable upon grant and shall vest as to 417 shares on 06/01/02 and the balance of 9,583 divided into equal monthly installments thereafter such that the option shall be 100% vested on 05/01/04.

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

- $^{\star}$  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.