FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

| 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).

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

| ., | | | or Section 30(h) of the Investment Company Act of 1940 | | | | | | | | |
|------------------------------|--|----------|--|-----------------------|---|--|--|--|--|--|--|
| 1. Name and Addre | | | 2. Issuer Name and Ticker or Trading Symbol CYTOKINETICS INC [CYTK] | (Chec | ationship of Reporting Pe k all applicable) Director Officer (give title | erson(s) to Issuer 10% Owner Other (specify | | | | | |
| (Last) 280 EAST GRA | (First) AND AVENUE | (Middle) | 3. Date of Earliest Transaction (Month/Day/Year) 08/08/2017 | X | below) GC & Chief Compl | below) | | | | | |
| (Street) SOUTH SAN FRANCISCO | CA | 94080 | 4. If Amendment, Date of Original Filed (Month/Day/Year) | 6. Indi Line) X | , | | | | | | |
| (City) | (State) | (Zip) | | | | | | | | | |
| | Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned | | | | | | | | | | |

| 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. Transa Code (8) | | Disposed Of (D) (Instr. 3, 4 and 5) | | | 5. Amount of Securities Beneficially Owned Following Reported | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Indirect Beneficial Ownership (Instr. 4) | | |
| | | | Code | v | Amount | (A) or (D) | Price | Transaction(s) (Instr. 3 and 4) | | (1130.4) | | |
| Common Stock | 08/08/2017 | | M ⁽¹⁾ | | 1,391 | A | \$6.67 | 21,570 | D | | | |
| Common Stock | 08/08/2017 | | S ⁽²⁾ | | 300 | D | \$12.35 | 21,270 | D | | | |
| Common Stock | 08/08/2017 | | M ⁽¹⁾ | | 2,736 | A | \$6.67 | 24,006 | D | | | |
| Common Stock | 08/08/2017 | | S ⁽²⁾ | | 500 | D | \$12.375 | 23,506 | D | | | |
| Common Stock | 08/08/2017 | | M ⁽¹⁾ | | 5,411 | A | \$6.37 | 28,917 | D | | | |
| Common Stock | 08/08/2017 | | S ⁽²⁾ | | 3,200 | D | \$12.4 | 25,717 | D | | | |
| Common Stock | 08/08/2017 | | S ⁽²⁾ | | 800 | D | \$12.425 | 24,917 | D | | | |
| Common Stock | 08/08/2017 | | S ⁽²⁾ | | 2,300 | D | \$12.45 | 22,617 | D | | | |
| Common Stock | 08/08/2017 | | S ⁽²⁾ | | 200 | D | \$12.475 | 22,417 | D | | | |
| Common Stock | 08/08/2017 | | S ⁽²⁾ | | 300 | D | \$12.5 | 22,117 | D | | | |
| Common Stock | 08/08/2017 | | S ⁽²⁾ | | 700 | D | \$12.625 | 21,417 | D | | | |
| Common Stock | 08/08/2017 | | S ⁽²⁾ | | 500 | D | \$12.65 | 20,917 | D | | | |
| Common Stock | 08/08/2017 | | S ⁽²⁾ | | 538 | D | \$12.7 | 20,379 | D | | | |
| Common Stock | 08/08/2017 | | S ⁽²⁾ | | 200 | D | \$12.725 | 20,179 | D | | | |
| Common Stock | 08/08/2017 | | S ⁽²⁾ | | 1,810 | D | \$12.45 | 18,369 | 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. Transa Code (8) | | of Deri Seci Acq (A) (Disp of (E | osed 0) tr. 3, 4 | Expiration Date (Month/Day/Year) | | e Amount of | | 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) | \$6.37 | 08/08/2017 | | M | | | 5,411 | 05/29/2016 | 05/29/2025 | Common Stock | 5,411 | \$0.0 | 24,589 | D | |
| Incentive Stock Option (right to buy) | \$6.67 | 08/08/2017 | | М | | | 2,736 | 03/23/2016 | 02/23/2026 | Common Stock | 2,736 | \$0.0 | 26,782 | 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. Transa Code (8) | | of Deri Sec Acq (A) (Disp of (I | Expiration Date (Month/Day/Year) urities uired or losed b) tr. 3, 4 | | | 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 | | | | |
| Non- Qualified Stock Option (right to buy) | \$6.67 | 08/08/2017 | | М | | | 1,391 | 03/23/2016 | 02/23/2026 | Common Stock | 1,391 | \$0.0 | 4,091 | D | |

Explanation of Responses:

- 1. The exercise reported on this Form 4 was effected pursuant to a Rule 10b5-1 trading plan adopted by the reporting person on June 13, 2017.
- 2. The sales reported in this Form 4 were effected pursuant to a Rule 10b5-1 trading plan adopted by the reporting person on June 13, 2017.

Caryn McDowell 08/10/2017

** 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.

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.