

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

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* <u>SPUDICH JAMES A</u> _____ (Last) (First) (Middle) <u>280 EAST GRAND AVENUE</u> _____ (Street) <u>SOUTH SAN FRANCISCO CA 94080</u> _____ (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol <u>CYTOKINETICS INC [CYTK]</u>	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director 10% Owner Officer (give title below) Other (specify below)
	3. Date of Earliest Transaction (Month/Day/Year) <u>12/21/2006</u>	
4. If Amendment, Date of Original Filed (Month/Day/Year)		

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)	Price			
Common Stock	12/21/2006		S ⁽¹⁾		400	D	\$6.85	217,600	D	
Common Stock	12/21/2006		S ⁽¹⁾		100	D	\$6.83	217,500	D	
Common Stock	12/21/2006		S ⁽¹⁾		1,700	D	\$6.82	215,800	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)		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)					
Non-Qualified Stock Option (right to buy)	\$1.2					07/10/2002 ⁽²⁾	07/10/2012	Common Stock	10,000	10,000	D	
Non-Qualified Stock Option (right to buy)	\$5.55					05/19/2005	05/19/2015	Common Stock	7,500	7,500	D	
Non-Qualified Stock Option (right to buy)	\$7.29					05/25/2006	05/25/2016	Common Stock	7,500	7,500	D	

Explanation of Responses:

- 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.
- 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.

By: James H. Sabry For: James 12/21/2006
A. Spudich

** 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.