

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* <b>SPUDICH JAMES A</b> _____ (Last) (First) (Middle) <b>280 EAST GRAND AVENUE</b> _____ (Street) <b>SOUTH SAN FRANCISCO CA 94080</b> _____ (City) (State) (Zip)			2. Issuer Name and Ticker or Trading Symbol <b>CYTKINETICS INC [ CYTK ]</b>			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) <b>05/21/2009</b>			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		
			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							180,600	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					
Non-Qualified Stock Option (right to buy)	\$1.85	05/21/2009		A		15,000		06/21/2009 <sup>(1)</sup>	05/21/2019	Common Stock	\$0	15,000	D	
Non-Qualified Stock Option (right to buy)	\$1.2							07/10/2002 <sup>(2)</sup>	07/10/2012	Common Stock		10,000	D	
Non-Qualified Stock Option (right to buy)	\$2.85							02/02/2009 <sup>(3)</sup>	01/02/2019	Common Stock		17,543	D	
Non-Qualified Stock Option (right to buy)	\$3.73							08/01/2008 <sup>(4)</sup>	07/01/2018	Common Stock		6,702	D	
Non-Qualified Stock Option (right to buy)	\$3.83							06/22/2008 <sup>(5)</sup>	05/22/2018	Common Stock		15,000	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				
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)	\$6.55							05/24/2007	05/24/2017	Common Stock	10,000		10,000	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:**

- This option shall vest and become exercisable as to 15,000 shares divided into equal monthly installments such that the option shall be 100% vested on May 21, 2010.
- 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.
- This option shall vest and become exercisable as to 17,543 shares divided into equal monthly installments such that the option shall be 100% vested on January 2, 2010.
- This option shall vest and become exercisable as to 6,702 shares divided into equal monthly installments such that the option shall be 100% vested on January 1, 2009.
- This option shall vest and become exercisable as to 15,000 shares divided into equal monthly installments such that the option shall be 100% vested on May 22, 2009.

By: Sharon Barbari For: James A. Spudich, Ph.D. 05/22/2009

\*\* 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.**