

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* RABSON MICHAEL			2. Issuer Name and Ticker or Trading Symbol CYTOKINETICS INC [CYTK]			5. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director 10% Owner <input checked="" type="checkbox"/> Officer (give title below) Other (specify below) SVP Business Dev/Legal & GC		
(Last)	(First)	(Middle)	3. Date of Earliest Transaction (Month/Day/Year) 12/18/2009					
280 EAST GRAND AVENUE			4. If Amendment, Date of Original Filed (Month/Day/Year)			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		
(Street) SOUTH SAN FRANCISCO CA 94080								
(City)	(State)	(Zip)						

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	12/18/2009		M		15,000	A	\$1.85	20,043	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
Non-Qualified Stock Option (right to buy)	\$1.85	12/18/2009		M		15,000		03/26/2009 ⁽¹⁾	02/26/2019	Common Stock	15,000	\$0	62,916	D	
Incentive Stock Option (right to buy)	\$1.85							03/26/2009 ⁽¹⁾	02/26/2019	Common Stock	32,084		32,084	D	
Incentive Stock Option (right to buy)	\$3.32							03/31/2009 ⁽²⁾	03/31/2018	Common Stock	102,860		102,860	D	
Non-Qualified Stock Option (right to buy)	\$3.32							03/31/2009 ⁽²⁾	03/31/2018	Common Stock	97,140		97,140	D	

Explanation of Responses:

- When the ISO and NQ dated 02/26/2009 are combined for a total grant of 110,000 shares, the option shall vest and become exercisable as to 2,291 shares on 03/26/09 and the balance of 107,709 divided into equal monthly installments thereafter such that the option shall be 100% vested on 02/26/13.
- When the ISO and NQ dated 03/31/2008 are combined for a total grant of 200,000 shares, the option shall vest and become exercisable as to 50,000 shares on 03/31/09 and the balance of 150,000 divided into equal monthly installments thereafter such that the option shall be 100% vested on 03/31/12.

Michael S. Rabson 12/21/2009

** 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.