

**STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP**

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

1. Name and Address of Reporting Person* <u>Sabry James H</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) Director 10% Owner Officer (give title below) <input checked="" type="checkbox"/> Other (specify below) <u>Former Executive Chairman</u>
	3. Date of Earliest Transaction (Month/Day/Year) <u>03/31/2010</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	03/31/2010		M <sup>(1)</sup>		10,000	A	\$1.2	10,000	D	
Common Stock	03/31/2010		S <sup>(2)</sup>		1,600	D	\$3.22	8,400	D	
Common Stock	03/31/2010		S <sup>(2)</sup>		4,800	D	\$3.23	3,600	D	
Common Stock	03/31/2010		S <sup>(2)</sup>		300	D	\$3.235	3,300	D	
Common Stock	03/31/2010		S <sup>(2)</sup>		2,300	D	\$3.24	1,000	D	
Common Stock	03/31/2010		S <sup>(2)</sup>		1,000	D	\$3.2425	0	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)	\$1.2	03/31/2010		M			10,000	07/10/2002 <sup>(3)</sup>	07/10/2012	Common Stock	10,000	\$0	95,455	D	
Incentive Stock Option (right to buy)	\$0.58							11/14/2000 <sup>(4)</sup>	11/14/2010	Common Stock	50,267		50,267	D	
Incentive Stock Option (right to buy)	\$1.2							07/10/2002 <sup>(3)</sup>	07/10/2012	Common Stock	7,132		7,132	D	
Incentive Stock Option (right to buy)	\$1.2							05/21/2003 <sup>(5)</sup>	05/21/2013	Common Stock	75,000		75,000	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				
Incentive Stock Option (right to buy)	\$6.5							04/08/2004 <sup>(6)</sup>	03/08/2014	Common Stock	66,943		66,943	D	
Incentive Stock Option (right to buy)	\$6.59							04/11/2005 <sup>(7)</sup>	04/11/2015	Common Stock	15,154		15,154	D	
Incentive Stock Option (right to buy)	\$6.81							04/01/2007 <sup>(8)</sup>	03/14/2017	Common Stock	11,091		11,091	D	
Incentive Stock Option (right to buy)	\$7.15							03/01/2006 <sup>(9)</sup>	03/01/2016	Common Stock	18,464		18,464	D	
Non-Qualified Stock Option (right to buy)	\$6.5							04/08/2004 <sup>(6)</sup>	03/08/2014	Common Stock	19,557		19,557	D	
Non-Qualified Stock Option (right to buy)	\$6.59							04/11/2005 <sup>(7)</sup>	04/11/2015	Common Stock	69,846		69,846	D	
Non-Qualified Stock Option (right to buy)	\$6.81							04/01/2007 <sup>(8)</sup>	03/14/2017	Common Stock	88,909		88,909	D	
Non-Qualified Stock Option (right to buy)	\$7.15							03/01/2006 <sup>(9)</sup>	03/01/2016	Common Stock	131,536		131,536	D	

**Explanation of Responses:**

- The exercise reported in this Form 4 was effected pursuant to a domestic relations court order.
- The sales reported in this Form 4 were effected pursuant to a domestic relations court order.
- When the ISO and NQ dated 07/10/02 are combined for a total grant of 300,000 shares, the option is immediately exercisable upon grant and shall vest as to 5,000 shares on 04/15/02 and the balance of 295,000 divided into equal monthly installments thereafter such that the option shall be 100% vested on 03/15/07.
- When the ISO and NQ dated 11/14/00 are combined for a total grant of 250,000 shares, the option is immediately exercisable upon grant and shall vest as to 4,167 shares on 12/14/00 and the balance of 245,833 divided into equal monthly installments thereafter such that the option shall be 100% vested on 11/14/05.
- This option is immediately exercisable upon grant and shall vest as to 1,563 shares on 04/01/03 and the balance of 73,437 divided into equal monthly installments thereafter such that the option shall be 100% vested on 03/01/07.
- When the ISO and NQ dated 03/08/04 are combined for a total grant of 86,500 shares, the option shall vest and become exercisable as to 1,802 shares on 04/08/04 and the balance of 84,698 divided into equal monthly installments thereafter such that the option shall be 100% vested on 03/08/08.
- When the ISO and NQ dated 04/11/05 are combined for a total grant of 85,000 shares, the option shall vest and become exercisable as to 85,000 shares divided into equal monthly installments such that the option shall be 100% vested on 03/01/2009.
- When the ISO and NQ dated 03/14/2007 are combined for a total grant of 100,000 shares, the option shall vest and become exercisable as to 2,083 shares on 04/01/07 and the balance of 97,917 divided into equal monthly installments thereafter such that the option shall be 100% vested on 03/01/11.
- When the ISO and NQ dated 03/01/2006 are combined for a total grant of 150,000 shares, the option shall vest and become exercisable as to 150,000 shares divided into equal monthly installments such that the option shall be 100% vested on 03/01/2010.

By: Sharon Barbari For: James H. Sabry, M.D., Ph.D. 04/01/2010

\*\* 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.

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