

OMB APPROVAL	
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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* HOLMES E CARMACK _____ (Last) (First) (Middle) 3020 CALLAN ROAD _____ (Street) SAN DIEGO CA 92121 _____ (City) (State) (Zip)			2. Issuer Name and Ticker or Trading Symbol CYTORI THERAPEUTICS, INC. [CYTX]			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) 01/20/2010			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	01/20/2010		M		10,000 ⁽¹⁾	A	\$3.47	12,472	D	
Common Stock	01/20/2010		M		10,000 ⁽¹⁾	A	\$3.12	22,472	D	
Common Stock	01/20/2010		S		3,900 ⁽¹⁾	D	\$9	18,572	D	
Common Stock	01/20/2010		S		1,000 ⁽¹⁾	D	\$9.01	17,572	D	
Common Stock	01/20/2010		S		800 ⁽¹⁾	D	\$9.04	16,772	D	
Common Stock	01/20/2010		S		3,400 ⁽¹⁾	D	\$9.05	13,372	D	
Common Stock	01/20/2010		S		2,200 ⁽¹⁾	D	\$9.06	11,172	D	
Common Stock	01/20/2010		S		2,300 ⁽¹⁾	D	\$9.07	8,872	D	
Common Stock	01/20/2010		S		100 ⁽¹⁾	D	\$9.075	8,772	D	
Common Stock	01/20/2010		S		1,300 ⁽¹⁾	D	\$9.08	7,472	D	
Common Stock	01/20/2010		S		500 ⁽¹⁾	D	\$9.09	6,972	D	
Common Stock	01/20/2010		S		400 ⁽¹⁾	D	\$9.1	6,572	D	
Common Stock	01/20/2010		S		800 ⁽¹⁾	D	\$9.12	5,772	D	
Common Stock	01/20/2010		S		1,300 ⁽¹⁾	D	\$9.13	4,472	D	
Common Stock	01/20/2010		S		1,500 ⁽¹⁾	D	\$9.14	2,972	D	
Common Stock	01/20/2010		S		500 ⁽¹⁾	D	\$9.16	2,472	D	
Common Stock								15,161	I ⁽²⁾	By Trust ⁽²⁾

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)	\$3.47	01/20/2010		M			10,000 ⁽¹⁾	08/11/2004 ⁽³⁾	08/11/2013	Common Stock	20,000	\$0	205,000	D	
Non-Qualified Stock Option	\$3.12	01/20/2010		M			10,000 ⁽¹⁾	03/02/2005 ⁽⁴⁾	02/02/2015	Common Stock	35,000	\$0	195,000	D	

Explanation of Responses:

- The exercise of stock options and sales of shares were executed pursuant to a Rule 10b5-1 Trading Plan.
- These shares are held of record by E. Carmack Holmes & Carolyn K Holmes TTEE, Holmes Living Trust DD 05/15/92.

3. The option vests 1/48th each month after a one-year cliff from date of grant.

4. The options vest as to 1/48th each month from date of grant.

Remarks:

Jonathan E. Soneff, By Power
of Attorney For: E. Carmack
Holmes 01/21/2010

** 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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