FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

| Washington, | D.C. | 20549 |
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| | | |

| Check this box if no longer subject to Section 16. Form 4 or Form 5 | STATEMEN |
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| obligations may continue. See | |
| Instruction 1(b). | Filed p |

T OF CHANGES IN BENEFICIAL OWNERSHIP

OMB APPROVAL OMB Number: Estimated average burden hours per response: 0.5

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* HEDRICK MARC H | | | | | | 2. Issuer Name and Ticker or Trading Symbol CYTORI THERAPEUTICS, INC. [CYTX] | | | | | | | | | | Relationship of Reporting Person(s) to Issuer (Check all applicable) Director 10% Owner | | | | | |
|--|--|--|---|-------|------------------------------|---|------|----------|--------------------------------------|----------------------------------|------------------|---|------------|----------------------|-----------------------------------|---|--|---|--|---|--|
| (Last) 3020 CA | (Fi | , | (Middle) | | | Date o | | est Trar | nsac | ction (Mo | (Month/Day/Year) | | | | | | | Officer (give title Other (specify | | | |
| (Street) SAN DII | EGO C. | A s | 92121 | | 4. 1 | 4. If Amendment, Date of Original Filed (Month/Day/Year) | | | | | | | | | | 6. Indi Line) X | X Form filed by One Reporting Person Form filed by More than One Reporting | | | | |
| (City) | (S | tate) | (Zip) | | | | | | | | | | | | Perso | n | | | | | |
| | 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) | | · | Transaction Disposed Code (Instr. 5) | | | rities Acquired (A) o ed Of (D) (Instr. 3, 4 | | | | 5. Amount of Securities Beneficially Owned Following Reported | | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | | 7. Nature of Indirect Beneficial Ownership | |
| | | | | | | | Code | v | Amount | | (A) or (D) | Pri | ce | Transac (Instr. 3 | ion(s) | | | (Instr. 4) | | | |
| Restricted Stock Award - Common Stock ⁽¹⁾ | | | tock ⁽¹⁾ | 02/2 | 28/2011 | | | | | A | | 36,85 | 0(1) | A | | \$ <mark>0</mark> | 485,088 | | | D | |
| Common Stock | | | | | | | | | | | | | | | | 4, | 4,000 | | I | By IRA | |
| Common Stock | | | | | | | | | | | | | | | | 7,800 | | | I | By Family Trust | |
| | | Т | able II - | | | | | | | | | sed of onverti | | | | | wned | | , | | |
| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deemed Execution I if any (Month/Day | Date, | 4. Transa Code (8) | | n of | | Ex | Date Exe piration onth/Day | Date | of Securities | | es Securi | De | erivative ecurity estr. 5) | 9. Number derivative Securities Beneficially Owned Following Reported Transaction (Instr. 4) | ly | 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | Beneficial Ownership t (Instr. 4) | |
| | | | | Co | Code | v | (A) | (D) | Dat Exe | te ercisable | | xpiration ate | Title | | Amou or Numb of Share | er | | | | | |
| Warrant to Purchase Common | \$2.62 | | | | | | | | 05 | 5/12/2009 | 05 | 5/12/2014 | Com Sto | | 35,00 | 00 | | 35,000 |) | D | |

Explanation of Responses:

1. The vesting of the Restricted Stock Award depends upon the achievement of certain performance goals for the year ended December 31, 2011. Those goals include obtaining certain FDA clearance or approval, achieving a targeted revenue increase and entering in to a major collaboration for development/commercialization of the Company's products. The deadline for achieving these goals is January 1, 2012, at which time the Compensation Committee will determine the percentage of stock that will continue to vest. The shares that continue to vest will be fully vested on Jan.1, 2013.

Remarks:

Jonathan E. Soneff, By Power of Attorney For: Marc H. **Hedrick**

03/01/2011

** 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.