FORM 4

## UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

| OMB APPROVAL        |           |  |  |  |  |  |  |  |  |
|---------------------|-----------|--|--|--|--|--|--|--|--|
| OMB Number:         | 3235-0287 |  |  |  |  |  |  |  |  |
| Estimated average b | ourden    |  |  |  |  |  |  |  |  |

0.5

hours per response:

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* Steinhart Richard I                     |  |  |   |                 | 2. Issuer Name <b>and</b> Ticker or Trading Symbol MELA SCIENCES, INC. /NY [ MELA ] |     |   |     |               |                                |                    |  | neck all a<br>Dii  | ship of Reportir<br>applicable)<br>rector<br>ficer (give title    |   | ssuer<br>Owner<br>(specify |   |  |
|--|--|--|---|-----------------|---|-----|---|-----|---------------|--------------------------------|--------------------|--|--|---|---|----------------------------|---|--|
| (Last) (First) (Middle) C/O MELA SCIENCES, INC                                   |  |  |   |                 | 3. Date of Earliest Transaction (Month/Day/Year) 08/12/2010                         |     |   |     |               |                                |                    |  |  | low)  | below<br>uncial Officer                             |                            |   |  |
| 50 SOUTH BUCKHOUT STREET, SUITE 1  |  |  |   | 4. If A         | If Amendment, Date of Original Filed (Month/Day/Year)                               |     |   |     |               |                                |                    | 6.   | 6. Individual or Joint/Group Filing (Check Applicable      |   |   |                            |   |  |
| (Street) IRVINGTON NY 10533  |  |  |   |                 | / monamont, Date of Original Filed (Month Day/ Teal)                                |     |   |     |               |                                | Lin                | e)<br><mark>X</mark> Fo  |  |   |   |                            |   |  |
| (City)   | (9   | tate) (                                    | Zip)  |                 |   |     |   |     |               |                                |                    |  |  |   |   |                            |   |  |
| Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned |  |  |   |                 |   |     |   |     |               |                                |                    |  |  |   |   |                            |   |  |
| 1. Title of Security (Instr. 3)  2. Transac Date (Month/Date)                    |  |  |   | Execution Date, |   | Cod | Transaction Disposed Of (D) (Inst Code (Instr. 5) |     |               |                                |                    | Sec<br>Ben<br>Owr  | mount of<br>urities<br>eficially<br>ned Following<br>orted | 6. Ownership<br>Form: Direct<br>(D) or Indirect<br>(I) (Instr. 4) | 7. Nature<br>of Indirect<br>Beneficial<br>Ownership |                            |   |  |
|  |  |  |   |                 |   |     |   | Cod | de V          | Amount (A                      |                    | (A) or<br>(D)  | Price  | Trar  | isaction(s)<br>tr. 3 and 4)                         |                            | (Instr. 4)  |  |
| Common Stock 08/12/2   |  |  |   |                 | /2010 08/12/2010  |     | P   |     | 1,000 A       |                                | \$6.3              | 2  | 1,000  | D   |   |                            |   |  |
|  | Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities) |  |   |                 |   |     |   |     |               |                                |                    |  |  |   |   |                            |   |  |
| 1. Title of<br>Derivative<br>Security<br>(Instr. 3)                              | 2.<br>Conversion<br>or Exercise<br>Price of<br>Derivative<br>Security  | 3. Transaction<br>Date<br>(Month/Day/Year) | 3A. Deeme<br>Execution<br>if any<br>(Month/Da | Date, 7         | Code (Inst  |     |   |     | Expira        | e Exerc<br>ation Da<br>h/Day/Y |                    | 7. Title and<br>Amount of<br>Securities<br>Underlying<br>Derivative<br>Security (Instrand 4) |  |   | 3. Price o<br>Derivative<br>Security<br>Instr. 5)   |                            | Ownership<br>Form:<br>Direct (D)<br>or Indirect<br>(I) (Instr. 4) | 11. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4) |
|  |  |  |   |                 | Code  | ,   | (A)   | (D) | Date<br>Exerc | isable                         | Expiration<br>Date | Title  | or<br>Nun<br>of  | ount<br>nber<br>res   |   |                            |   |  |

**Explanation of Responses:** 

Remarks:

/s/ Philip DeBellis as attorney-08/12/2010 in-fact for Richard I. Steinhart

\*\* 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.