# 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 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 <sup>*</sup><br>O'Connor John James                                | 2. Issuer Name and Ticker or Trading Symbol <u>LEMAITRE VASCULAR INC</u> [LMAT] | 5. Relationship of Reporting Person(s) to Issuer<br>(Check all applicable)  |  |  |  |  |  |
|--|---|---|--|--|--|--|--|
| (Last) (First) (Middle)  | 3. Date of Earliest Transaction (Month/Day/Year)<br>05/17/2010                  | X Director 10% Owner<br>Officer (give title Other (specify<br>below) below)   |  |  |  |  |  |
| C/O LEMAITRE VASCULAR, INC.<br>63 SECOND AVENUE<br>(Street)<br>BURLINGTON MA 01803<br>(City) (State) (Zip) | 4. If Amendment, Date of Original Filed (Month/Day/Year)                        | <ul> <li>6. Individual or Joint/Group Filing (Check Applicable Line)</li> <li>X Form filed by One Reporting Person</li> <li>Form filed by More than One Reporting Person</li> </ul> |  |  |  |  |  |

### Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

| 1. Title of Security (Instr. 3) | 2. Transaction<br>Date<br>(Month/Day/Year) | 2A. Deemed<br>Execution Date,<br>if any<br>(Month/Day/Year) | 3.<br>Transaction<br>Code (Instr.<br>8) |   | 4. Securities<br>Disposed Of<br>and 5) |               |        | 5. Amount of<br>Securities<br>Beneficially<br>Owned         | Form: Direct<br>(D) or<br>Indirect (I) | 7. Nature<br>of Indirect<br>Beneficial<br>Ownership |
|---------------------------------|--|---|---|---|--|---------------|--------|---|--|---|
|                                 |  |   | Code                                    | v | Amount                                 | (A) or<br>(D) | Price  | Following<br>Reported<br>Transaction(s)<br>(Instr. 3 and 4) | (Instr. 4)                             | (Instr. 4)  |
| Common Stock                    | 05/17/2010                                 |   | Р                                       |   | 300                                    | A             | \$5.16 | 21,900  | D                                      |   |
| Common Stock                    | 05/17/2010                                 |   | Р                                       |   | 409                                    | Α             | \$5.17 | 22,309  | D                                      |   |
| Common Stock                    | 05/17/2010                                 |   | Р                                       |   | 1,400                                  | A             | \$5.28 | 23,709  | D                                      |   |
| Common Stock                    | 05/17/2010                                 |   | Р                                       |   | 2,891                                  | A             | \$5.29 | 26,600  | 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 | <br>3A. Deemed<br>Execution Date,<br>if any<br>(Month/Day/Year) | 4.<br>Transact<br>Code (In<br>8) |   | of<br>Deriv<br>Secu<br>Acqu<br>(A) of<br>Dispo<br>of (D) | erivative (Month/Day/Year)<br>ccurities<br>cquired<br>) or<br>(D)<br>sposed<br>(D)<br>str. 3, 4 |                     | Amour<br>Securi<br>Underl<br>Deriva | nt of<br>ties<br>ying<br>tive<br>ty (Instr. | of<br>Derivative                       | 9. Number of<br>derivative<br>Securities<br>Beneficially<br>Owned<br>Following<br>Reported<br>Transaction(s)<br>(Instr. 4) | Ownership<br>Form:<br>Direct (D)<br>or Indirect<br>(I) (Instr.<br>4) | Beneficial<br>Ownership |  |
|   |   |   | Code                             | v | (A)  | (D)   | Date<br>Exercisable | Expiration<br>Date                  | Title                                       | Amount<br>or<br>Number<br>of<br>Shares |  |  |                         |  |

Explanation of Responses:

#### <u>/s/ Aaron M. Grossman</u> <u>Attorney-In-Fact</u>

05/17/2010

\*\* 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.

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.