FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

| OMB APPRO | OVAL |
|------------------------|-----------|
| OMB Number: | 3235-0287 |
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| | Check this box if no longer subject to |
|---|--|
| ١ | Section 16. Form 4 or Form 5 |
| J | obligations may continue. See |
| | Instruction 1(h) |

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

| Name and Address of Reporting Person* O'Toole David D | | | | | | 2. Issuer Name and Ticker or Trading Symbol MEDICINOVA INC [MNOV] | | | | | | | | | | | p of Reporting Person plicable) ctor | | s) to Is | | |
|---|--|--|--|-------|--|---|------|--------|------------------------------------|--------------------------------------|---|--|--|---|---|---|--|---|--|---|--|
| (Last) (First) (Middle) C/O MEDICINOVA, INC. | | | | | | 3. Date of Earliest Transaction (Month/Day/Year) 05/29/2012 | | | | | | | | | | Office | er (give title v) | | Other (specify below) | | |
| 4350 LA JOLLA VILLAGE DR., STE 950 | | | | | | 4. If Amendment, Date of Original Filed (Month/Day/Year) | | | | | | | | | 6. Individual or Joint/Group Filing (Check Applicable Line) | | | | | | |
| (Street) SAN DIEGO CA 92122 | | | | | | | | | | | | | | | | X Form filed by One Reporting Person Form filed by More than One Reporting Person | | | | | |
| (City) | (5 | 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 | | | Code (| Transaction Disposed Code (Instr. 5) | | ties Acquired (A) d Of (D) (Instr. 3, 4 | | | 4 and Secu Bene Owne | | cially I Following | 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 | | Reported Transaction(s) (Instr. 3 and 4) | | | | (instr. 4) | | | | |
| Common Stock 05/29/ | | | | | | | | | P | | 5,000 | | A | \$1.78 | | 5,000 | | D | | | |
| | | Та | ıble II - I | | | | | | | | sed of, onvertib | | | | y Ov | ned | | | | | |
| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deem Execution if any (Month/Da | Date, | 4. Transaction Code (Instr 8) | | n of | | 6. Date E Expiratio (Month/D | е | 7. Title and Amount of Securities Underlying Derivative Security (Instr. and 4) | | str. 3 | 8. Price Derivative Security (Instr. 5) | | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction (Instr. 4) | Ownershi Form: Direct (D) or Indirec (I) (Instr. 4 | : t (D) lirect | 11. Nature of Indirect Beneficial Ownership (Instr. 4) | | |
| | | | | | Code | v | (A) | (D) | Date Exercisal | | Expiration Date | Title | or Nun of | ount nber res | | | | | | | |

Explanation of Responses:

Remarks:

/s/ Michael Coffee, Attorney-

05/30/2012

in-Fact

** 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.