FORM 3

### UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

## INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF

OMB APPROVAL

OMB Number: 3235-0104

Estimated average burden hours per response: 0.5

# SECURITIES Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934

|   |  |  | 16(a) of the Securities Exchange A<br>the Investment Company Act of 1   |  |   |   |   |  |  |  |
|---|--|--|---|--|---|---|---|--|--|--|
| Name and Address of Reporting Person*  2. Date of Event Requiring Statement (Month/Day/Year) 11/09/2006               |  | 3. Issuer Name and Ticker or Trading Symbol METABOLIX, INC. [ MBLX ] |   |  |   |   |   |  |  |  |
| (Last) (First) (Middle) C/O METABOLIX, INC. 21 ERIE STREET  | 11/09/2006   |  | Officer (give title   | 10% Owne                               | er (Mor                                     | 5. If Amendment, Date of Original Filed (Month/Day/Year)  6. Individual or Joint/Group Filing (Check Applicable Line) |   |  |  |  |
| (Street) CAMBRIDGE MA 02139   |  |  | below)  | below)                                 | 1   | Form filed b  | y One Reporting Person<br>y More than One<br>erson          |  |  |  |
| (City) (State) (Zip)  |  |  |   |  |   |   |   |  |  |  |
|   | Table I - No   | n-Derivat  | tive Securities Beneficial  | ly Owned                               |   |   |   |  |  |  |
| 1. Title of Security (Instr. 4)   |  |  | 2. Amount of Securities Beneficially Owned (Instr. 4) Graph Securities 3. Ownership Form: Direct or Indirect (I) (Instr. 5) |  | t (D) (Instr                                | (D) (Instr. 5)  |   |  |  |  |
| Common Stock  |  |  | 163,795   | I                                      | By V  | rtical Fund I, L.P. <sup>(1)</sup>  |   |  |  |  |
| Common Stock  |  |  | 82,303  | I                                      | By V  | ertical Fund  | II, L.P. <sup>(1)</sup>                                     |  |  |  |
| Table II - Derivative Securities Beneficially Owned<br>(e.g., puts, calls, warrants, options, convertible securities) |  |  |   |  |   |   |   |  |  |  |
| 1. Title of Derivative Security (Instr. 4)  | 2. Date Exercisable and Expiration Date (Month/Day/Year) |  | 3. Title and Amount of Securit<br>Underlying Derivative Securit   |  | 4.<br>Conversion<br>or Exercise<br>Price of | 5.<br>Ownership<br>Form:<br>Direct (D)  | 6. Nature of Indirect<br>Beneficial Ownership<br>(Instr. 5) |  |  |  |
|   | Date<br>Exercisable                                      | Expiratior<br>Date   | Title   | Amount<br>or<br>Number<br>of<br>Shares | Derivative<br>Security                      | or Indirect<br>(I) (Instr. 5)   |   |  |  |  |
| Series A Preferred Stock  | (2)  | (2)  | Common Stock  | 65,902                                 | (2)   | I   | By Vertical Fund I,<br>L.P. <sup>(1)</sup>                  |  |  |  |
| Series A Preferred Stock  | (2)  | (2)  | Common Stock  | 66,098                                 | (2)   | I   | By Vertical Fund II,<br>L.P. <sup>(1)</sup>                 |  |  |  |
| Series B Preferred Stock  | (2)  | (2)  | Common Stock  | 94,687                                 | (2)   | I   | By Vertical Fund I,<br>L.P. <sup>(1)</sup>                  |  |  |  |
| Series B Preferred Stock  | (2)  | (2)  | Common Stock  | 104,313                                | (2)   | I   | By Vertical Fund II,<br>L.P. <sup>(1)</sup>                 |  |  |  |
| Series C Preferred Stock  | (2)  | (2)  | Common Stock  | 88,627                                 | (2)   | I   | By Vertical Fund I,<br>L.P. <sup>(1)</sup>                  |  |  |  |
| Series C Preferred Stock  | (2)  | (2)  | Common Stock  | 128,373                                | (2)   | I   | By Vertical Fund II,<br>L.P. <sup>(1)</sup>                 |  |  |  |
| Series D Preferred Stock  | (2)  | (2)  | Common Stock  | 45,450                                 | (2)   | I   | By Vertical Fund I,<br>L.P. <sup>(1)</sup>                  |  |  |  |
| Series D Preferred Stock  | (2)  | (2)  | Common Stock  | 56,550                                 | (2)   | I   | By Vertical Fund II,<br>L.P. <sup>(1)</sup>                 |  |  |  |
| Series F Preferred Stock  | (2)  | (2)  | Common Stock  | 24,520                                 | (2)   | I   | By Vertical Fund I,<br>L.P. <sup>(1)</sup>                  |  |  |  |
| Series F Preferred Stock  | (2)  | (2)  | Common Stock  | 12,480                                 | (2)   | I   | By Vertical Fund II,<br>L.P. <sup>(1)</sup>                 |  |  |  |
| Series G Preferred Stock  | (2)  | (2)  | Common Stock  | 35,638                                 | (2)   | I   | By Vertical Fund I,<br>L.P. <sup>(1)</sup>                  |  |  |  |
| Series G Preferred Stock  | (2)  | (2)  | Common Stock  | 11,409                                 | (2)   | I   | By Vertical Fund II,<br>L.P. <sup>(1)</sup>                 |  |  |  |
| Series 04 Preferred Stock   | (2)  | (2)  | Common Stock  | 537,861                                | (2)   | I   | By Vertical Fund I,<br>L.P. <sup>(1)</sup>                  |  |  |  |

| Table II - Derivative Securities Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities) |   |                    |  |  |                                    |   |   |  |  |  |  |
|--|---|--------------------|--|--|------------------------------------|---|---|--|--|--|--|
| 1. Title of Derivative Security (Instr. 4)   | 2. Date Exerc<br>Expiration Day/<br>(Month/Day/ | ate                | 3. Title and Amount of Securities<br>Underlying Derivative Security (Instr. 4) |  | 4.<br>Conversion<br>or Exercise    | 5.<br>Ownership<br>Form:                    | 6. Nature of Indirect<br>Beneficial Ownership<br>(Instr. 5) |  |  |  |  |
|  | Date<br>Exercisable                             | Expiration<br>Date | Title  | Amount<br>or<br>Number<br>of<br>Shares | Price of<br>Derivative<br>Security | Direct (D)<br>or Indirect<br>(I) (Instr. 5) |   |  |  |  |  |
| Series 04 Preferred Stock  | (2)   | (2)                | Common Stock   | 318,956                                | (2)                                | I   | By Vertical Fund II,<br>L.P. <sup>(1)</sup>                 |  |  |  |  |
| Series 05 Preferred Stock  | (2)   | (2)                | Common Stock   | 16,667                                 | (2)                                | I   | By Vertical Fund II,<br>L.P. <sup>(1)</sup>                 |  |  |  |  |
| Warrant (right to buy)   | (3)   | 04/12/2007         | Common Stock   | 66,179                                 | 13.21                              | I   | By Vertical Fund I,<br>L.P. <sup>(1)</sup>                  |  |  |  |  |
| Warrant (right to buy)   | (3)   | 04/12/2007         | Common Stock   | 29,248                                 | 13.21                              | I   | By Vertical Fund I,<br>L.P. <sup>(1)</sup>                  |  |  |  |  |
| Warrant (right to buy)   | (3)   | 04/12/2007         | Common Stock   | 38,074                                 | 13.21                              | I   | By Vertical Fund II,<br>L.P. <sup>(1)</sup>                 |  |  |  |  |
| Warrant (right to buy)   | (3)   | 04/12/2007         | Common Stock   | 6,558                                  | 13.21                              | I   | By Vertical Fund II,<br>L.P. <sup>(1)</sup>                 |  |  |  |  |

#### **Explanation of Responses:**

- 1. The reporting person is a general partner of The Vertical Group, L.P., the general partner of Vertical Fund I, L.P. and Vertical Fund II, L.P., and he disclaims beneficial ownership of the securities except to the extent of his indirect pecuniary interest therein. This report shall not be deemed an admission that the reporting person is the beneficial owner of the securities for purposes of Section 16 or for any other
- 2. The Issuer's preferred stock will automatically be converted into Common Stock on a .8173-for-1 basis upon the closing of the Issuer's initial public offering.
- 3. These warrants are fully vested and exercisable.

#### Remarks:

Exhibit 24 - Power of Attorney

/s/ Sarah P. Cecil, attorney-in-11/08/2006

\*\* 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 5 (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.

#### POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned hereby constitutes and appoints James J. Barber, Thomas G. Auchincloss, Jr., Aninda Katragadda, Sarah Cecil, Christopher J. Denn, John M. Mutkoski, and Robert E. Puopolo and any one of them acting singly, the true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for the undersigned and in the undersigned's name, place and stead, in any and all capacities (until revoked in writing) to execute for and on behalf of the undersigned, in any and all of the undersigned's capacities, any and all statements on Forms 3, 4 and 5 with respect to the undersigned's holdings of and transactions in securities issued by Metabolix, Inc. (the "Company") in accordance with Sections 16(a) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and any and all regulations promulgated thereunder, and to file the same, with all exhibits thereto, and any other documents in connection therewith, with the Securities and Exchange Commission, and with any other entity when and if such is mandated by the Exchange Act or by the By-laws of the National Association of Securities Dealers, granting unto said attorneys-in-fact and agents full power and authority to do and perform each and every act and thing requisite and necessary fully to all intents and purposes as the undersigned might or could do in person thereby ratifying and confirming all that said attorneys-in-fact and agents, or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

This Power of Attorney shall remain in full force and effect until the undersigned is no longer required to file Forms 3, 4 and 5 with respect to the undersigned's holdings of and transactions in securities issued by the Company, unless earlier revoked by the undersigned in a signed writing delivered to the foregoing attorneys-in-fact.

IN WITNESS WHEREOF, this Power of Attorney has been signed as of October 30, 2006.

Signature: /s/ Jack W. Lasersohn

Name: Jack W. Lasersohn