

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549**

FORM S-8

**REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

METABOLIX, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware

(State or Other Jurisdiction of Incorporation or Organization)

04-3158289

(I.R.S. Employer Identification No.)

Metabolix, Inc.

21 Erie Street

Cambridge, MA 02139

(Address of Principal Executive Offices) (Zip Code)

2006 Stock Option and Incentive Plan

(Full Title of the Plan)

Richard P. Eno

Chief Executive Officer

Metabolix, Inc.

21 Erie Street

Cambridge, MA 02139

(Name and Address of Agent for Service)

(617) 583-1700

(Telephone Number, Including Area Code, of Agent For Service)

Copies to:

Sarah P. Cecil
General Counsel
Metabolix, Inc.
21 Erie Street
Cambridge, MA 02139
(617) 583-1700

John M. Mutkoski, Esq.
Goodwin Procter LLP
Exchange Place
Boston, MA 02109
(617) 570-1000

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer o
Non-accelerated filer o

Accelerated filer x
Smaller reporting company o

CALCULATION OF REGISTRATION FEE

Title of Securities To Be Registered	Amount To Be Registered(1)(2)	Proposed Maximum Offering Price Per Share(3)	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee(4)
2006 Stock Option and Incentive Plan Common Stock, par value \$.01 per share	1,535,211	\$ 2.335	\$ 3,584,717.60	\$ 410.80

- (1) This registration statement relates to 1,535,211 shares of common stock, \$0.01 par value per share, of the Registrant (the "Common Stock") reserved for issuance under the 2006 Stock Option and Incentive Plan (the "2006 Plan"), which shares are in addition to 6,459,908 shares of Common Stock previously registered pursuant to Registration Statements on Form S-8 (Registration Nos. 333-138631, 333-145232, 333-155115, 333-157869, 333-165405 and 333-172724) and filed with the Securities and Exchange Commission. The current filing is being made to register an additional 1,535,211 shares which are issuable under the 2006 Plan.
- (2) Pursuant to Rule 416 under the Securities Act of 1933, as amended (the "Securities Act"), this registration statement shall also cover any additional shares of Common Stock which become issuable under the 2006 Plan by reason of any stock dividend, stock split, recapitalization or any other similar transaction effected without the receipt of consideration which results in an increase in the number of outstanding shares of Common Stock.
- (3) The price of \$2.335 per share, which is the average of the high and low sales price for a share of Common Stock as reported on the Nasdaq Global Market on May 4, 2012, is set forth solely for purposes of calculating the registration fee pursuant to Rule 457(c) and (h) of the Securities Act and has been used only because these shares are without a fixed price.
- (4) Calculated pursuant to Section 6(b) of the Securities Act.

This Registration Statement registers additional securities of the same class as other securities for which a registration statement filed on Form S-8 (SEC File No. 333-138631) relating to an employee benefit plan of the Registrant is effective. The information contained in the Registrant's registration statement on Form S-8 (SEC File No. 333-138631) is hereby incorporated by reference pursuant to General Instruction E to Form S-8.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The following documents filed with the Commission are incorporated by reference in this Registration Statement:

- (a) The Registrant's Annual Report on Form 10-K for the year ended December 31, 2011, filed on March 12, 2012;
- (b) All other reports filed pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") since December 31, 2011; and
- (c) The section entitled "Description of Registrant's Securities to be Registered" contained in the Registrant's Registration Statement on Form 8-A, filed pursuant to Section 12(b) of the Exchange Act, on November 6, 2006, including any amendment or report filed for the purpose of updating such description.

All documents subsequently filed with the Commission by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act, on or after the date of this Registration Statement and prior to the filing of a post-effective amendment to this Registration Statement which indicates that all securities offered herein have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference in this Registration Statement and to be a part thereof from the date of filing of such documents.

Item 8. Exhibits.

See the Exhibit Index on the page immediately preceding the exhibits for a list of exhibits filed as part of this Registration Statement on Form S-8, which Exhibit Index is incorporated herein by reference.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Cambridge, Commonwealth of Massachusetts, on May 9, 2012.

METABOLIX, INC.

By: /s/ Richard P. Eno
Richard P. Eno
President, Chief Executive Officer and Director

POWER OF ATTORNEY AND SIGNATURES

We, the undersigned officers and directors of Metabolix, Inc. (the "Company"), hereby severally constitute and appoint Richard P. Eno, Joseph D. Hill, and Sarah P. Cecil, and each of them singly, our true and lawful attorneys, with full power to them, and to each of them singly, to sign for us and in our names in the capacities indicated below, any and all amendments to this Registration Statement, and all other documents in connection therewith to be filed with the Securities and Exchange Commission, and generally to do all things in our names and on our behalf in such capacities to enable the Company to comply with the provisions of the Securities Act of 1933, as amended, and all requirements of the Securities and Exchange Commission.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated:

<u>/s/ Richard P. Eno</u> Richard P. Eno	Director, President and Chief Executive Officer (Principal Executive Officer)	May 9, 2012
<u>/s/ Joseph D. Hill</u> Joseph D. Hill	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	May 9, 2012
<u>/s/ Edward M. Giles</u> Edward M. Giles	Director	May 9, 2012
<u>/s/ Peter N. Kellogg</u> Peter N. Kellogg	Director	April 24, 2012
<u>/s/ Jay Kouba</u> Jay Kouba	Director	May 9, 2012
<u>/s/ Stephen J. Large</u> Stephen J. Large	Director	April 27, 2012
<u>/s/ Celeste Beeks Mastin</u> Celeste Beeks Mastin	Director	April 24, 2012

3

<u>/s/ Edward M. Muller</u> Edward M. Muller	Director	April 24, 2012
<u>/s/ Oliver P. Peoples</u> Oliver P. Peoples	Director	May 3, 2012
<u>/s/ Anthony J. Sinskey</u> Anthony J. Sinskey	Director	April 24, 2012
<u>/s/ Matthew Strobeck</u> Matthew Strobeck	Director	May 9, 2012
<u>/s/ Robert L. Van Nostrand</u> Robert L. Van Nostrand	Director	May 9, 2012
<u>/s/ Barbara H. Wells</u> Barbara H. Wells	Director	April 23, 2012

4

INDEX TO EXHIBITS

<u>Exhibit No.</u>	<u>Description of Exhibit</u>
5.1	Opinion of Goodwin Procter LLP
23.1	Consent of Goodwin Procter LLP (included in Exhibit 5.1)
23.2	Consent of PricewaterhouseCoopers LLP, an independent registered public accounting firm
24.1	Power of Attorney (included as part of the signature page of this Registration Statement)
99.1	2006 Stock Option and Incentive Plan (incorporated by reference herein to the exhibits to the Company's Registration Statement on Form S-1 (File No. 333-135760))

5

May 9, 2012

Metabolix, Inc.
21 Erie Street
Cambridge, MA 02139

Re: Securities Being Registered under Registration Statement on Form S-8

Ladies and Gentlemen:

We have acted as counsel to you in connection with your filing of a Registration Statement on Form S-8 (the "**Registration Statement**") pursuant to the Securities Act of 1933, as amended (the "**Securities Act**"), on or about the date hereof relating to an aggregate of 1,535,211 shares (the "**Shares**") of Common Stock, \$0.01 par value per share, of Metabolix, Inc., a Delaware corporation (the "**Company**"), that may be issued pursuant to the Company's 2006 Stock Option and Incentive Plan (the "**Plan**").

We have reviewed such documents and made such examination of law as we have deemed appropriate to give the opinion expressed below. We have relied, without independent verification, on certificates of public officials and, as to matters of fact material to the opinion set forth below, on certificates of officers of the Company.

The opinion expressed below is limited to the Delaware General Corporation Law (which includes reported judicial decisions interpreting the Delaware General Corporation Law).

For purposes of the opinion expressed below, we have assumed that a sufficient number of authorized but unissued shares of the Company's Common Stock will be available for issuance when the Shares are issued.

Based on the foregoing, we are of the opinion that the Shares have been duly authorized and, upon issuance and delivery against payment therefor in accordance with the terms of the Plan, will be validly issued, fully paid and nonassessable.

We hereby consent to the inclusion of this opinion as Exhibit 5.1 to the Registration Statement. In giving our consent, we do not admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations thereunder.

Very truly yours,

/S/ Goodwin Procter LLP

GOODWIN PROCTER LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated March 12, 2012 relating to the financial statements and the effectiveness of internal control over financial reporting, which appears in Metabolix, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2011.

/s/ PricewaterhouseCoopers LLP
Boston, Massachusetts
May 9, 2012
