Metabolix, Inc. 21 Erie Street Cambridge, MA 02139

November 7, 2006

By EDGAR and Overnight Courier

Securities and Exchange Commission Division of Corporation Finance 100 F Street, N.E. Washington, D.C. 20549-7010

Attention: Mses. Pamela A. Long and Brigitte Lippmann

RE: Metabolix, Inc.

Registration Statement on Form S-1

File No. 333-135760

Dear Mses. Long and Lippmann:

Pursuant to Rule 461 of the Rules and Regulations of the Securities and Exchange Commission (the "Commission") under the Securities Act of 1933, as amended (the "Act"), Metabolix, Inc. (the "Company") hereby requests acceleration of the effective date of the above-mentioned Registration Statement on Form S-1 (the "Registration Statement") to 4:00 p.m., Eastern Time on November 9, 2006, or as soon thereafter as practicable. In this regard, the Company is aware of its obligations under the Act. In addition, the Company hereby requests acceleration of the effective date of its Registration Statement on Form 8-A so that it becomes effective concurrently with the Registration Statement on Form S-1.

In connection with the foregoing, the Company hereby acknowledges the following:

- · should the Commission or the staff of the Commission, acting pursuant to delegated authority, declare the Registration Statement effective, it does not foreclose the Commission from taking any action with respect to the Registration Statement;
- the action of the Commission or the staff of the Commission, acting pursuant to delegated authority, in declaring the Registration Statement effective, does not relieve the Company from its full responsibility for the adequacy and accuracy of the disclosure in the Registration Statement; and
- the Company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Very truly yours,

Metabolix, Inc.

By: /s/ James J. Barber

James J. Barber

President, Chief Executive Officer and Director

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Attention: Mses. Pamela A. Long and Brigitte Lippmann

RE: Metabolix, Inc.

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File No. 333-135760

Dear Mses. Long and Lippmann:

Pursuant to Rule 461 of the Rules and Regulations of the Securities and Exchange Commission (the "<u>Commission</u>") under the Securities Act of 1933, as amended (the "<u>Act</u>"), the undersigned, as representatives of the prospective underwriters of the above issue, hereby join with the Company to request acceleration of the effective date of the above-mentioned Registration Statement on Form S-1 (the "<u>Registration Statement</u>") to 4:00 p.m., Eastern Time on November 9, 2006, or as soon thereafter as practicable.

In connection with Rule 460 of the Act, please be advised that, during the period from October 20, 2006 to the date of this letter, we have effected approximately the following distribution of copies of the preliminary prospectus, dated October 20, 2006:

Institutional Investors 3,120
Retail Investors 1,360
Underwriters 50

The underwriters and dealers of the above issue were advised that they must comply with the provisions of Rule 15c2-8 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). The undersigned, as representatives, have and will, and each underwriter and dealer has advised the undersigned that it has and will, comply with SEC Release No. 33-4968 and Rule 15c2-8 under the Exchange Act.

Very truly yours,

PIPER JAFFRAY & CO.

As Representatives of the several Underwriters

BY: PIPER JAFFRAY & CO.

BY: /s/ Christie L. Christina

Name: Christie L. Christina

Title: Principal