VIA EDGAR AND OVERNIGHT DELIVERY

United States Securities and Exchange Commission Division of Corporation Finance 100 F Street, N.E. Washington, D.C. 20549-4631

Attention: Rufus Decker

Re: Metabolix, Inc.

Form 10-K for the fiscal year ended December 31, 2011

Filed March 12, 2012

Form 10-Q for the period ended June 30, 2012

Filed July 27, 2012 File No. 1-33133

Dear Mr. Decker:

This letter is being furnished on behalf of Metabolix, Inc. (the "Company" or "Metabolix") in response to comments of the staff of the Division of Corporation Finance (the "Staff") of the Securities and Exchange Commission (the "Commission") as set forth in your letter dated October 1, 2012 addressed to Joseph D. Hill, Chief Financial Officer of the Company, with respect to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2011 that was filed with the Commission on March 12, 2012 and the Company's Quarterly Report on Form 10-Q for the period ended June 30, 2012 that was filed with the Commission on July 27, 2012.

The responses and supplementary information set forth below have been organized in the same manner in which the Commission's comments were organized.

Form 10-K for the Year Ended December 31, 2011

General

Comment No. 1

Where a comment below requests additional disclosures or other revisions to be made, please show us in your supplemental response what the revisions will look like. These revisions should be included in your future filings, including your interim filings, if applicable.

Response to Comment No. 1

The Company advises the Staff that additional disclosures or other revisions to be made based on the Staff's comments are reflected below in the Company's responses. We will revise our future filings, where applicable, to reflect such revisions.

Notes to the Financial Statements

Note 2. — Summary of Significant Accounting Policies

Revenue Recognition, page F-10

Comment No. 2

We note your response to comment three in our letter dated August 27, 2012. Please help us better understand how you determined that government grant amounts should be reflected in revenues. Please specifically address the following:

- Your disclosures on page 50 indicate that grants include amounts for reimbursement to your subcontractors as well as reimbursement for your employees'
 time, benefits and other expenses related to performance under grants. In this regard, please tell us what consideration you gave as to whether grant
 amounts should be reflected as a reduction of these corresponding expenses;
- Your proposed disclosures indicate that grants are central to your ongoing operations. Please clarify in your disclosures whether performing contractual research and development services are considered to be part of your ongoing major or central operations; and
- Please tell what consideration you gave to the examples provided in ASC 808-10-55 in determining the appropriate income statement presentation of these government grant amounts.

Response to Comment No. 2

First Bullet

· Your disclosures on page 50 indicate that grants include amounts for reimbursement to your subcontractors as well as reimbursement for your employees' time, benefits and other

expenses related to performance under grants. In this regard, please tell us what consideration you gave as to whether grant amounts should be reflected as a reduction of these corresponding expenses.

Response to First Bullet

As outlined in our previous response, performing research and development is central to the Company's ongoing operations. Additionally, since 2001 the Company has received government grants to drive its research and development efforts. Through these government grants, the government has provided funding for the Company to perform research and development activities in order to develop environmentally sustainable, economically attractive alternatives to petroleum based plastics, chemicals and energy. The Company believes the government entities funding these grants are interested in the Company advancing its underlying technologies through research activities and not providing incentives for hiring employees or building facilities that would suggest that the grant monies are not for specific research activities.

The Company incurs internal and external expenses related to the performance under the grants. In considering how to present these costs, the Company has concluded that it is the primary obligor for all of the categories of costs noted in the Staff's comment and as such, is reporting those costs gross (consistent with the guidance in ASC 605-45-45-19 to 45-23).

In determining how to classify the monies received under government grants, the Company acknowledges that there is no specific guidance under US GAAP and that the FASB and AICPA have often drawn upon the guidance in IAS 20 for classification. In considering the alternatives provided by IAS 20 for the presentation of these grants in the Company's financial statements, the Company believes that recognizing the government grant proceeds as revenue is a better reflection of the economics of the arrangements as the Company earns the funding through the performance of research and development which is one of the Company's primary business activities. The Company believes that presenting research and development funding from government grants as revenue provides consistency in our financial reporting as research funding from other sources including commercial research arrangements has been and will be presented as revenue. The Company also believes that this presentation clearly presents to users of its financial statements in one line the Company's sources of funding from these grants. The Company notes that there are no contingencies associated with the receipt of or ability to retain the funds under the grant, other than undertaking and performing the related research and development activities.

The Company continually evaluates its accounting policy to reflect government grants as revenue and has considered the following factors in determining its ongoing accounting practice.

Absence of Higher Level Accounting Literature. The Company routinely reviews and analyzes new guidance to ensure that its accounting practices are consistent with US GAAP and Commission reporting requirements. In maintaining its practice of reporting

3

government grants as revenue, the Company took into consideration the lack of guidance that would clearly require a change in its reporting policy for government grants. The Company also considered paragraphs 78 to 89 of Statement of Financial Accounting Concepts No. 6, *Elements of Financial Statements*, in distinguishing between "revenues" and "gains", which are primarily distinguished by whether the activities associated with generating those amounts reflect the entity's ongoing major or central operations. As noted elsewhere in this response, the Company believes these research activities are part of its ongoing major or central operations.

- · **Comparability**. Statement of Financial Accounting Concepts No. 2, *Qualitative Characteristics of Accounting Information*, ("CON2") discusses the quality of information that enables users of financial statements to identify similarities in and differences between two sets of economic phenomena. The Company noted in its initial response that there is diversity of accounting practice among companies receiving funds from government grants. In making its accounting decision, the Company gave due consideration to the common practice of recording grant receipts as revenue by those companies that believe such grants represent an ongoing major and central operation of their businesses.
- · **Consistency**. CON2 defines this element of financial reporting as the conformity of accounting practice from period-to-period with unchanging policies and procedures. The Company gave consideration to its long-standing practice of reporting and disclosing government grants as revenue. In the absence of a change in accounting guidance or an internal change in the importance of government grants as an ongoing and central operation of its business, the Company gave consideration to the importance of maintaining consistency in its accounting policy.
- **Predictive Value**. CON2 defines this element as the quality of information that helps users of financial statements to correctly forecast the outcome of past or present events. The Company's shareholders are familiar with its accounting practices for government grants and have developed financial models that assist them in more accurately forecasting its financial results. In the absence of a change in accounting guidance or an internal change in the importance of government grants as an ongoing and central operation of its business, the Company gave appropriate consideration to the need of its shareholders to be able to accurately forecast future results in their investment decision-making.

Δ

Second Bullet

Your proposed disclosures indicate that grants are central to your ongoing operations. Please clarify in your disclosures whether performing contractual
research and development services are considered to be part of your ongoing major or central operations.

Response to Second Bullet

The Company acknowledges the Commission's comment and notes that it is not currently providing contractual research and development services as a result of the termination of the ADM arrangement in February 2012. In the future the Company may enter into arrangements in which it provides contractual research and development services. As future arrangements are likely to be part of the Company's ongoing major or central operations, the Company would expect that future payments received for research and development services would be recognized as revenue, consistent with the Company's

policy. Should the Company enter into new research and development arrangements in the future, this disclosure will be updated to address the accounting for such arrangements as well.

In its future filings, the Company will amend the disclosure in its Summary of Significant Accounting Policies to read:

"The Company recognizes funds received from contractual research and development services and from government grants as revenue. These contracts and grants are considered an ongoing major and central operation of the Company's business. For government grants, revenue is earned as research expenses related to the grants are incurred."

Third Bullet

Please tell what consideration you gave to the examples provided in ASC 808-10-55 in determining the appropriate income statement presentation of these government grant amounts.

Response to Third Bullet

The Company reviewed the examples provided in ASC 808-10-55 and determined that the examples do not apply to the Company's government grant accounting. ASC 808 addresses collaborative arrangements. To be a collaborative arrangement under ASC 808-10-20, a contractual arrangement must involve a joint operating activity. Parties to a collaborative arrangement must meet both of the following:

They are both active participants in the activity, and

5

· They are both exposed to significant risks and rewards dependent on the commercial success of the activity.

The guidance of ASC 808-10-15-9 further states that an entity that solely provides financial resources to an endeavor is generally not an active participant in a collaborative arrangement within the scope of ASC 808.

In its historic grants, U.S. and Canadian governments have not taken active roles in the research and development activities associated with the individual grants. Nor have they been contractually eligible to share in the financial rewards of any successful commercial endeavors that may arise as a result of the research and development undertaken. Instead, these governments have been passively involved, merely distributing the grant funds and reviewing the results of the work performed by the Company in the interest of public policy (there are no required end result deliverables for which the Company is economically obligated). The Company has concluded that its historic government grants do not meet the requirements of a collaborative arrangement and therefore the examples provided in ASC 808-10-55 do not apply.

Comment No. 3

We note your response to comment four in our letter dated August 27, 2012. As disclosed on page 10 of your Form 10-Q for the period ended June 30, 2012, the \$38.9 million which was recorded as revenue during 2012 was related to upfront payments, milestone payments, support payments, and cost sharing payments for pre-commercial manufacturing plant construction and operations. Please help us better understand how you determined that all of the payments from the collaborative arrangement with ADM should be reflected as revenue pursuant to ASC 808-10-45-3 through 5. The guidance in ASC 808 including the examples provided in ASC 808-10-55 would indicate that you should evaluate the appropriate income statement classification for each component of the \$38.9 million separately.

Response Comment No. 3

The Company entered into its agreements with ADM beginning in November 2004 with the objective of developing and commercializing environmentally sustainable, economically attractive alternatives to petroleum-based plastics. Under the terms of the alliance, Metabolix provided technology, licenses, and research and development services and received as consideration for the technology, licenses, and research and development services a combination of upfront, milestone and support payments. The Company believes that the technology, licenses and research and development services provided by Metabolix created a vendor/customer relationship with ADM as ADM engaged Metabolix to perform research and development services and paid Metabolix for those services. Most of these payments were fixed under the arrangements; a smaller portion was variable based on Metabolix's actual costs incurred.

When the Company entered into the arrangement in 2004, the Company assessed the relevant accounting literature and determined the ADM arrangement fell within the revenue

6

recognition guidance of EITF 00-21, *Revenue Arrangements with Multiple Deliverables*, ("EITF 00-21") due to the vendor/customer nature of the relationship. Following this revenue recognition guidance, Metabolix reviewed the details of the ADM arrangement under EITF 00-21 and determined that none of the Company's deliverables qualified as separate units of accounting because there was not sufficient objective and reliable evidence to support the fair value of the various elements. As a result, all of the payments were treated as a single unit of accounting. Prior to Metabolix completing its performance obligations, ADM unexpectedly terminated the arrangement in February 2012. Upon the arrangement being terminated, the Company had no remaining performance obligations. Accordingly, the Company recognized all amounts that were previously deferred as revenue. As the Company was following revenue recognition guidance for this arrangement, and as the Company had determined that all of the deliverables should be combined into a single unit of accounting, the Company believed that it was appropriate to recognize all amounts previously deferred within one line item within revenue. This approach is consistent with the single unit of accounting conclusion.

When EITF 07-01, *Accounting for Collaborative Arrangements* ("EITF 07-01") was issued (now included within ASC 808), the Company reconsidered the income statement classification of these payments made by ADM. The Company noted in ASC 808-10-45-3 (formerly paragraph 18 of EITF

07-01) that "...payments between participants pursuant to a collaborative arrangement that are within the scope of other authoritative accounting literature on income statement classification should be accounted for using the relevant provisions of that literature. If the payments are not within the scope of other authoritative accounting literature, the income statement classification for the payments should be based on an analogy to authoritative accounting literature or if there is no appropriate analogy, a reasonable, rational and consistently applied accounting policy election." As the Company originally determined that the ADM arrangement fell within the revenue recognition guidance, the Company believed that it had complied with the guidance in ASC 808 around evaluation of income statement classification for these payments.

Therefore, while the Company considered the guidance in ASC 808, it believes that the most appropriate analogy under ASC 808-10-45-3 is to the multiple element revenue recognition guidance. The Company does not reach the second step of the analysis of ASC 808 (application of a reasonable, rational and consistently applied accounting policy election) for the classification of payments received from the other participant in the arrangement, and accordingly, does not preclude classification of such payments as revenue.

Form 10-Q for the Period Ended June 30, 2012

General

Comment No. 4

Please address the above comments in your interim filings as well, as applicable.

7

Response to Comment No. 4

The Company advises the Staff that additional disclosures or other revisions to be made based on the Staff's above comments will be included in our future interim filings, where applicable, to reflect such revisions.

* * * *

8

If you have any questions with regard to the Company's responses, need further supplemental information or would like to discuss any of the matters covered in this letter, please contact the undersigned at (617) 583-1700.

Sincerely,

/s/ Joseph D. Hill

Joseph D. Hill Chief Financial Officer