

July 23, 2010

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: John Hartz

**Re: Form 10-K for the fiscal year ended December 31, 2009
Definitive Proxy Statement on Schedule 14A
File No. 1-33133**

Dear Mr. Hartz:

This letter is being furnished on behalf of Metabolix, Inc. (the "Company") in response to comments of the staff (the "Staff") of the Securities and Exchange Commission (the "Commission") as set forth in your letter dated June 24, 2010 (the "Letter") to Joseph D. Hill, Vice President and 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, 2009 (the "2009 Annual Report") that was filed with the Commission on March 11, 2010 and the Definitive Proxy Statement on Schedule 14A (the "Proxy Statement") that was filed with the Commission on April 23, 2010.

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, 2009

Consolidated Financial Statements

Note 2 — Summary of Significant Accounting Policies, page F-7

Comment No. 1

Please disclose the types of expenses that you include in the selling, general and administrative expense line item. Please also disclose the income statement line item where you record inbound freight charges, purchasing and receiving costs, inspection costs, warehousing costs, internal transfer costs, and other costs of your distribution network.

Response to Comment No. 1

The Company respectfully acknowledges the Staff's comment and will disclose the following information in the Form 10-K for the year ending December 31, 2010. The Company's selling, general and administrative expense line item includes costs for salaries, employee benefits, facilities expenses, consulting fees, travel expenses, depreciation expense, and office related expenses incurred to support the selling and administrative operations of the Company.

The Company has recorded inbound freight charges, purchasing and receiving costs, inspection costs, warehousing costs, internal transfer costs, and costs of its distribution network as part of research and development expense, as these costs are substantially all associated with internal research and development. The amount of these costs included in research and development expense for each of the years ended December 31, 2009, 2008 and 2007 was less than \$50,000. During these years the Company was engaged primarily in research and development and had very little commercial sales distribution activity. The Company will continue to analyze the impact of inbound freight changes, purchasing and receiving costs, inspection costs, warehousing costs, internal transfer costs, and costs of its distribution network, and, if the amounts become material, the Company will disclose these costs.

Comment No. 2

Please show us how you will revise your future filings to disclose your accounting policy for shipping and handling costs. Refer to FASB ASC 605-45-50-2.

Response to Comment No. 2

The Company respectfully acknowledges the Staff's comment. The Company has not disclosed its accounting policy for shipping and handling costs because the Company believes that its shipping and handling costs are immaterial. Shipping and handling costs for each year ended December 31, 2009, 2008 and 2007 was less than \$50,000, respectively. Under the terms

of its collaborative agreements with Archer Daniels Midland Company ("ADM"), the Company has been responsible for shipping and handling costs related to pre-commercial pilot manufacturing of Mirel bioplastics. Since the start up in December 2009 of commercial production at the Commercial Manufacturing Facility, Telles, the joint venture entity owned equally by ADM and the Company, is responsible for commercial product shipping and handling costs. As a result, the Company does not expect shipping and handling costs to be material in future periods. Since the Company's shipping and handling costs are immaterial the Company is not expecting to disclose its accounting policy for shipping and handling costs in the Form10-K for the year ending December 31,

2010. The Company will continue to analyze the impact of shipping and handling costs and, if the amounts become material, the Company will disclose its accounting policy for shipping and handling costs.

Comment No. 3

Please show us how you will revise your future filings to disclose your advertising accounting policy, including the total amount charged to advertising expense for each period presented. Refer to FASB ASC 720-35-50-1.

Response Comment No. 3

The Company respectfully acknowledges the Staff's comment. The Company has not disclosed its advertising accounting policy because the Company believes that its advertising expense is immaterial. Advertising expense for 2009, 2008 and 2007 was \$40,000, \$6,000 and \$22,000, respectively. In addition, the Company does not expect advertising expense to be material in future periods. Upon commencement of the Commercial Phase of the collaboration arrangement with ADM, all advertising costs associated with the sale of Mirel will be transferred to Telles. The Commercial Phase commences upon achievement of the contractual First Commercial Sale milestone, which is defined in the Commercial Alliance Agreement as the sale by Telles to third parties of at least one million pounds of Mirel manufactured at the Commercial Manufacturing Facility. The Company will continue to analyze its advertising expense and, if the amounts become material, the Company will disclose its advertising accounting policy in its filings.

Note 3 — Significant Collaborations, page F-13

Comment No. 4

Please help us to better understand how you have accounted for the ADM Collaboration. In particular:

- *Tell us how you have accounted for your 50% ownership in Telles*

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- *Tell us why you have been unable to separate future compounding services, sales and marketing services and certain research and development activities as separate units of accounting*
- *Explain in more detail the rationale for deferring research and development revenues, when such activities have already been undertaken and you have received payment for these activities. In this regard, we note that you have recorded substantial expenses for the years presented, but have deferred substantial revenues.*

In order for us to better understand your response, please provide us with a comprehensive table showing how you have accounted for and presented in the income statement, since inception, any and all expenses, revenues, receipts and costs incurred on your behalf, or that of Telles, regarding the ADM collaboration. You may need to provide references to the relevant agreements and GAAP, in order for us to fully understand the accounting.

Response to Comment No. 4

- *Tell us how you have accounted for your 50% ownership in Telles*

Response to First Bullet

The Company respectfully acknowledges the Staff's comment. At the time we entered into our agreements with ADM we considered the guidance of ASC 810.

The Company and ADM each possess 50% equity and voting interest in Telles. Each party also has equal participation in the Joint Steering Committee, the body that has decision-making responsibility for planning and overseeing the establishment and activities of Telles. Under ASC 810, the primary beneficiary of a variable interest entity is the enterprise that consolidates the variable interest entity. The primary beneficiary is the party that absorbs a majority of the entity's expected losses, receives a majority of the entity's expected residual returns, or both.

We concluded that the Company is not the primary beneficiary in the Telles entity for two reasons. First, ADM has advanced, and will continue to advance, a disproportionate share of the financial capital needed to construct the Commercial Manufacturing Facility and to fund its activities. Through March 31, 2010, ADM has invested \$351,357,000 to build a manufacturing facility that will be used to provide to the collaboration with Mirel as well as \$37,123,000 in upfront and technology milestone, quarterly support and pilot manufacturing cost sharing payments. The upfront and technology milestone, quarterly support and pilot manufacturing cost sharing payments have been provided by ADM to the Company. The actual activity in Telles to date has been limited. Also, ADM is contractually obligated to fund Telles' negative cash flow (or losses) until Telles reaches positive cash flow from its commercial activities. These current and future payments by ADM far exceed the payments to be made by the Company to the arrangement and are non-refundable to ADM in the event that we and ADM are unsuccessful in commercializing Mirel. Second, ADM will receive

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100% of the earnings (or residual returns) of Telles until such time that its disproportionate investment has been recovered. After recovery, the profits of Telles will be split 50/50. Based on these reasons we concluded that the Company was not the primary beneficiary of Telles and we have not consolidated Telles in our financial statements. Upon adoption of FAS 167 (ASC 810) the Company's assessment that the Company is not the primary beneficiary in the Telles entity did not change as the Company does not have the ability to unilaterally direct the decisions that are most critical to the success of Telles.

Since the Company is not the primary beneficiary of Telles, but has significant influence as a result of its ownership level and equal participation in the Steering Committee, we have accounted for the Company's 50% interest in Telles using the equity method of accounting. At the time the Company entered into its agreements with ADM the Company contributed to Telles a technology license. However, the technology license had no book value, and since the license was contributed in exchange for an equity interest in a newly formed entity, the carrying amount of the license is retained under ABP 29

(ASC 845). As a result, we concluded that the basis of the Company's equity investment in Telles is zero and the Company has no obligations to fund any future losses of the joint venture. The value of the Company's investment in Telles is not expected to increase until after ADM has received sufficient earnings from Telles to offset its capital investments described above and the Company begins to receive distributions from Telles. Our accounting treatment of Telles is consistent with ADM's decision to consolidate Telles in its financial statements.

Tell us why you have been unable to separate future compounding services, sales and marketing services and certain research and development activities as separate units of accounting.

Response to Second Bullet

The Company respectfully acknowledges the Staff's comment. When the Company entered into its agreements with ADM, the arrangement contained multiple elements, including an obligation for the Company to provide a transfer of technology, formulation services (also referred to as compounding services), sales and marketing services on behalf of Telles up to the First Commercial Sale milestone, research and development services, and participation in various steering committees. At that time, we considered the guidance in ASC 605 and determined that the deliverables in the arrangement did not qualify as separate units of accounting. The initial technology license, which was delivered at the inception of the arrangement, does not have stand-alone value since it does not have any value outside of the ongoing activities occurring during the development and commercialization periods. The Company has certain unique technological capabilities to develop and formulate the licensed materials, without which the license of the technology alone would not have been acquired by ADM. In addition, we determined that there was not sufficient objective and reliable evidence of fair value for the remaining undelivered elements under the Commercial Alliance Agreement. We considered these elements to be substantive and highly specialized, whereby the Company is uniquely qualified to provide these services to Telles. No other vendors offer such a service, and

the Company does not presently sell/formulate this material or similar products to any other customers. This contributed to our inability to determine an objective fair value for each of these services.

Explain in more detail the rational for deferring research and development revenues, when such activities have already been undertaken and you have received payment for these activities. In this regard, we note that you have recorded substantial expenses for the years presented, but have deferred substantial revenues.

Response to Third Bullet

The Company respectfully acknowledges the Staff's comment. The Company has incurred substantial research and development costs since the inception of its collaboration with ADM in order to achieve the First Commercial Sale milestone, and has recorded those charges to expense as incurred, which we view is an appropriate approach. Through March 31, 2010 the Company received payments from ADM and Telles to support research and commercial development, including upfront and milestone payments, quarterly support payments and pilot manufacturing cost sharing payments totaling \$37,123,000 as shown in the table below.

<u>Payments Received by the Company</u>	<u>Amount</u>	<u>Event</u>	<u>Accounting Treatment through March 31, 2010</u>	<u>GAAP</u>
Upfront	\$ 3,000,000	Received from ADM upon entering into the Technology Alliance and Option Agreement. Non-refundable.	Recorded as long-term deferred	ASC 605
Milestone Payments	\$ 2,000,000	Received from ADM upon achievement of technical milestones and exercise of the commercial alliance option. Non-refundable.	revenue and will be recognized	and
Quarterly Support	\$ 22,050,000	Payments of \$1,575,000 per quarter (for fourteen quarters) received from ADM, on behalf of Telles, through June 30, 2009. Non-refundable.	over the remaining performance period beginning	ASC 985
Cost Sharing	\$ 10,073,000	Cumulative pre-commercial pilot manufacturing and operating expenses. Non-refundable.	with start of the Commercial Phase	
Total payments received through 3/31/10	\$ 37,123,000			

We concluded that since we could not determine a fair value for each of the contractual elements, they could not be separated and accounted for individually as separate units of accounting. As a result, through March 31, 2010, these payments were recorded as deferred revenue on the Company's balance sheet. This accounting treatment has been consistently applied since the inception of our arrangement with ADM.

We analyzed our remaining obligations under our agreements with ADM to determine when the deferred revenue balance will be recognized. The Company's contractual obligations are delivered by the Company at various points during the term of our collaboration. However, as noted above, we are unable to separate the arrangement with ADM into multiple elements for accounting purposes under ASC 605. When there are multiple economic deliverables in an arrangement which is accounted for as a single element, we believe that a reasonable approach is to recognize revenue based upon commencement of the latest deliverable. Both of the remaining deliverables (commercial formulation services and participation in the Joint Steering Committee) will be performed concurrently and proportionately during the Commercial Phase of the arrangement. Since the final deliverables in the arrangement will have commenced at the start of this phase, and reflect services to be performed over time, we concluded that deferred revenue under the arrangement will be recognized over this performance period. This accounting treatment is also consistent with the guidance described in paragraphs 58 and 67 of SOP 97-2 (ASC 985-605-25-70 and ASC 985-605-25-80) for software contracts in which the only remaining undelivered element is services.

Comment No. 5

We note the references to footnotes (4) and (5) in the table, but we are unable to locate the text of footnotes (4) and (5). Please revise in future filings.

Response to Comment No. 5

The Company respectfully acknowledges the Staff's comment. The text of footnotes (4) and (5) appears after the text of footnote (3) on page 34 of the Proxy Statement.

Comment No. 6

In future filings, please state the base salary amount and the performance bonus amount of Dr. Oliver P. Peoples and Messrs. Johan van Walsem and Robert E. Engle under their employment agreements.

Response to Comment No. 6

The Company respectfully acknowledges the Staff's comment. The Company will, in future filings, provide the base salary amount and the performance bonus amount of Dr. Oliver P. Peoples and Messrs. Johan van Walsem and Robert E. Engle in the "Executive Employment Agreements" section of the proxy statement.

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We will include the following disclosure regarding base salary and bonus amounts for Dr. Peoples, Mr. van Walsem and Mr. Engle in future proxy statements:

Under his employment agreement Dr. Peoples is entitled to a base salary of not less than \$200,000. The Compensation Committee has set Dr. Peoples' base salary at \$240,000. The agreement also provides that Dr. Peoples will be eligible to receive annual bonuses under a bonus scheme to be established by the Company, based on individual and Company performance. During 2008, the Compensation Committee established the executive incentive program. Under that program, Dr. Peoples is eligible to receive a performance bonus of up to 150% of his base salary, depending on the Compensation Committee's assessment of achievement of individual and Company goals, with a target of 70% of base salary if performance goals are met.

Under his employment agreement Mr. van Walsem receives an initial base salary of \$240,000 per year. The agreement provides that Mr. van Walsem is eligible to receive a performance bonus of up to 150% of his base salary, depending on the Compensation Committee's assessment of achievement of individual and Company goals, with a target of 70% of base salary if performance goals are met.

Under the agreement Mr. Engle receives an initial base salary of \$240,000 per year. The agreement provides that Mr. Engle is eligible to receive a performance bonus of up to 120% of his base salary, depending on the Compensation Committee's assessment of achievement of individual and Company goals, with a target of 60% of base salary if performance goals are met.

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The Company acknowledges that:

- the Company is responsible for the adequacy and accuracy of disclosures in its filings;
- Staff comments or changes to disclosure in response to Staff comments do not foreclose the Commission from taking any action with respect to the Company's filings; and
- the Company may not assert Staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

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
