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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2013;

or

o **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

Commission File Number 001-33133

METABOLIX, INC.
(Exact name of registrant as specified in its charter)

Delaware	**04-3158289**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
21 Erie Street Cambridge, MA (Address of principal executive offices)	**02139** (Zip Code)

(Registrant's telephone number, including area code): **(617) 583-1700**

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Name of exchange on which registered
Common Stock, par value $.01 per share	The NASDAQ Stock Market LLC (NASDAQ Global Market)

Securities registered pursuant to Section 12(g) of the Act: **None**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes o No ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes o No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No o

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No o

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (Section 229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. o

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	Accelerated filer o	Non-accelerated filer o (Do not check if a smaller reporting company)	Smaller reporting company ☒

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of Act). Yes o No ☒

The aggregate market value of the voting and non-voting common equity held by non-affiliates computed by reference to the price at which the common equity was last sold on the NASDAQ Global Market on June 30, 2013 was $34,313,662.

The number of shares outstanding of the registrant's common stock as of March 21, 2014 was 34,889,055.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Registrant's definitive Proxy Statement to be filed with the Securities and Exchange Commission (the "Commission") pursuant to Regulation 14A in connection with the 2014 Annual Meeting of Stockholders to be held on May 20, 2014 are incorporated herein by reference into Part III of this report.

METABOLIX, INC.
ANNUAL REPORT ON FORM 10-K
For the Year Ended December 31, 2013

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Forward Looking Statements

This annual report on Form 10-K contains "forward-looking statements" within the meaning of 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. In particular, statements contained in the Form 10-K, including but not limited to, statements regarding our future results of operations and financial position, business strategy and plan prospects, projected revenue or costs and objectives of management for future research, development or operations, are forward-looking statements. These statements relate to our future plans, objectives, expectations and intentions and may be identified by words such as "may," "will," "should," "expects," "plans," "anticipate," "intends," "target," "projects," "contemplates," "believe," "estimates," "predicts," "potential," and "continue," or similar words.

Although we believe that our expectations are based on reasonable assumptions within the limits of our knowledge of our business and operations, the forward-looking statements contained in this document are neither promises nor guarantees. Our business is subject to significant risk and uncertainties and there can be no assurance that our actual results will not differ materially from our expectations. These forward looking statements include, but are not limited to, statements concerning: future financial performance and position, plans and expectations that depend on the Company's ability to continue as a going concern, and management's strategy, plans and objectives for research and development, product development, industry collaborations, manufacturing and commercialization of current and future products, including the commercialization of our biopolymer products. Such forward-looking statements are subject to a number of risks and uncertainties that could cause actual results to differ materially from those anticipated including, without limitation, risks related to our limited cash resources, uncertainty about our ability to secure additional funding, dependence on establishing a manufacturing source for our products, risks related to the development and commercialization of new and uncertain technologies, risks associated with our protection and enforcement of our intellectual property rights, as well as other risks and uncertainties set forth below under the caption "Risk Factors" in Part I, Item 1A, of this report.

The forward-looking statements and risk factors presented in this document are made only as of the date hereof and we do not intend to update any of these risk factors or to publicly announce the results of any revisions to any of our forward-looking statements other than as required under the federal securities laws.

Unless the context otherwise requires, all references in this Annual Report on Form 10-K to "Metabolix," "we," "our," "us," "our company" or "the company" refer to Metabolix, Inc., a Delaware corporation and its subsidiaries.

PART I

ITEM 1. BUSINESS

Overview

Metabolix is an innovation-driven bioscience company focused on delivering sustainable solutions to the plastics and chemicals industries. We have core capabilities in microbial genetics, fermentation process engineering, chemical engineering, polymer science, plant genetics and botanical science, and we have assembled these capabilities in a way that has allowed us to integrate our biotechnology research with real world chemical engineering and industrial practice. In addition, we have created an extensive intellectual property portfolio to protect our innovations and, together with our technology, to serve as a valuable foundation for future industry collaborations.

Our targeted markets of plastics and chemicals offer substantial opportunity for innovation and value creation. Our strategy is based on the performance and differentiation of our materials. With proprietary biopolymer formulations we aim to address unmet needs of our customers and leverage the

distinctive properties of our PHAs to improve critical product qualities and enable our customers to enhance the value of their products and/or achieve savings through their value chain. As such, we are positioning our biopolymers as advanced specialty materials that offer a broad and attractive range of properties and processing options compared to other bioplastics or performance additives. In addition, we are also leveraging our technology to utilize renewable feedstocks to produce biobased industrial chemicals for high value applications as alternatives to the primary synthetic routes currently deployed by the chemical industry. We believe that a substantial global market opportunity exists to develop and commercialize our technology to produce advanced biopolymer and biobased industrial chemical products.

Metabolix was formed to leverage the ability of natural systems to produce complex biopolymers from renewable resources. We have focused on a family of biopolymers found in nature called polyhydroxyalkanoates ("PHAs"), which occur naturally in living organisms and are chemically similar to polyesters. We have demonstrated the production of PHAs at industrial scale to produce PHA biopolymers and PHA precursors to biobased industrial chemicals. We have also demonstrated the production of polyhydroxybutyrate ("PHB"), a subclass of PHAs, in agriculturally significant non-food crops.

PHA Biopolymers Platform

From 2004 through 2011, we developed and began commercialization of our PHA biopolymers through a technology alliance and subsequent commercial alliance with a wholly-owned subsidiary of Archer Daniels Midland Company ("ADM"), one of the largest agricultural processors in the world. Under the commercial alliance, ADM was responsible for resin manufacturing, and Metabolix was primarily responsible for product development, compounding, marketing and sales. Through this alliance, the companies established a joint venture company, Telles, LLC ("Telles"), to commercialize PHA biopolymer products.

After ADM terminated the Telles joint venture early in 2012, we retained significant rights and assets associated with the PHA biopolymers business, which we used to relaunch the business with a new business model and a restructured biopolymers team that retained core capabilities in technology, manufacturing and marketing. We hold exclusive rights to the Metabolix technology and intellectual property used in the joint venture. We acquired all of Telles's product inventory and compounding raw materials, all product certifications and all product trademarks including Mirel™ and Mvera™, and we retained all co-funded pilot plant equipment in locations outside of the ADM commercial manufacturing facility in Clinton, Iowa. Today, we are focused on high value performance biopolymers and are in the process of identifying and securing the manufacturing capability needed to commercialize these products.

During 2012, we took key steps toward implementing the new business model for our PHA biopolymers business. We worked closely with our core customers to supply product from existing inventory as a bridge to new supply. We evaluated the potential applications for our biopolymer products and narrowed our market development focus to certain high value market segments: (i) performance additives, including film and bag applications; and (ii) functional biodegradation. In March 2012, we began directly recording product sales and shipping product from inventory to our customers. During the second half of 2012, we developed, sampled and launched a compostable film grade resin and, a polymeric modifier for polyvinyl chloride ("PVC"). We also established Metabolix GmbH, a subsidiary located in Cologne, Germany, to serve as a focal point for our commercial activities in Europe. This location is intended to enable us to directly access the European market, which is the largest for bioplastics.

During 2013, we continued to use existing biopolymer inventory as well as biobased and biodegradable polymers sourced from third parties to continue developing the market and to supply

new and existing customers. In the second half of 2013, we broadened our offering of film resins with the launch of Mvera B5010, a certified compostable resin for film and bag applications, and the launch of Mvera B5011, a certified compostable film resin for film and bag applications requiring transparency. We also launched I6003rp, a new polymeric modifier and processing aid for recycled PVC. Throughout 2013, we worked closely with customers developing applications using our materials.

During 2013 we also engaged in discussions and collaborations with potential customers and suppliers in Asia to expand our relationships there. In July 2013, we formalized a Memorandum of Understanding ("MOU") with Samsung Fine Chemicals, a company based in South Korea with complementary biopolymer products and complementary regional positioning to Metabolix. Under the MOU, we each fund our respective costs separately, but work together with the goal of expanding the global market for biodegradable polymers. Our MOU with Samsung also provides access to additional biodegradable polymers that we can use in resin formulations designed to deliver the best performance and value to targeted customer applications. The MOU is not a binding commitment and may be terminated at any time by either party without liability or obligations to the other party.

In 2014, we plan to increase our efforts in the areas of performance additives based on PHAs. We also expect to build on the performance, biodegradability and biobased content attributes of our PHA biopolymers as we continue to develop biobased and biodegradable resins for film and bag applications and for functional biodegradation applications based on PHAs and other biodegradable materials.

We will also continue to explore alternative options for biopolymer manufacturing with a supply chain properly sized to our business. In 2013, we conducted due diligence on several potential manufacturing sites, and we expect to select a site in 2014. Once our PHA supply chain is fully established, this captive capacity combined with access to additional biobased and biodegradable materials sourced from third parties, will allow us to continue formulating proprietary high-performance solutions for our target segments. However, our present capital resources are not sufficient to fund our planned operations for a twelve month period. We will, during 2014, require significant additional funding to continue our operations. Based on our current plans and projections, which remain subject to numerous uncertainties, we anticipate raising $50-60 million over the next 12-15 months. The timing, structure and vehicles for obtaining this financing are under consideration and it may be accomplished in stages. Although we cannot guarantee the availability of financing, our goal is to use this capital to build an intermediate scale specialty materials business based on PHA additives that serves as the foundation for our longer-range plans and the future growth of our business. Failure to receive additional funding will force us to delay, scale back or otherwise modify our business and manufacturing plans, sales and marketing efforts, research and development activities and other operations, and/or seek strategic alternatives.

Biobased Industrial Chemicals Platform.

For our second platform, we are developing C4 and C3 chemicals from biobased sources, as opposed to the fossil fuels that are used to produce most industrial chemicals today. Our process for creating biobased industrial C4 and C3 chemicals involves engineering metabolic pathways into microbes that, in a fermentation process, produce specific PHA structures that serve as precursors for these chemicals. Through our PHA technology, we are able to control the microbe biology to achieve high concentrations of specific PHAs that accumulate inside cells as they metabolize sugars. This intracellular accumulation of the biopolymers inside the microbes is a unique and differentiating aspect of our technology. When the fermentation is completed, we use a novel internally developed recovery process known as "FAST" (fast-acting, selective thermolysis) that converts the biopolymer directly to the target chemical using heat.

In the C4 program, we have produced biobased gamma butyrolactone ("GBL") at pilot scale and demonstrated a chemical profile that meets or exceeds the existing industrial specifications. In 2012, we

completed the preliminary design for a commercial scale plant to enable production of biobased GBL which, through an established conversion process, the biobased GBL can be further converted to biobased butanediol ("BDO"). This plan, which could be implemented under a potential future collaboration, includes specifications for all of the components of our fermentation and recovery process.

We believe that developing and commercializing biobased C3 chemicals could represent another attractive application of our technology. In 2012, after completing an analysis of the global market for acrylic acid, a C3 chemical, we continued scale up of fermentation and optimization of microbial strains to produce biobased C3 chemicals. We also successfully demonstrated recovery of acrylic acid from dried biomass using the "FAST" process in our Cambridge laboratory and provided sample quantities of dried biomass for conversion to biobased acrylic acid for customer evaluation. While significant work remains to be done, particularly around scale-up of the "FAST" process for commercial quantities of biobased acrylic acid, this is another opportunity that could be pursued under a potential future collaboration.

In 2013, we achieved three technical milestones in our biobased chemicals program. We demonstrated a process to efficiently recover ultra-high purity GBL from fermentation broth and showed that our C4 technology can be adapted to produce deuterated bio-GBL. We also demonstrated that our C3 and C4 microbial strains and fermentation processes are suitable for production of biobased chemicals based on second generation feedstocks, or cellulosic sugars.

While we believe that strategic alliances will be required to successfully commercialize C3 and C4 chemicals, there can be no assurance that we will be successful in establishing or maintaining suitable partnerships. We plan to continue seeking such alliances in 2014, with the goal to secure funding from potential partners to continue development of our biobased industrial chemical processes.

Crops Platform.

In our third technology platform, we are harnessing the renewable nature of plants to make renewable chemicals and bioenergy from crops. The focal point of our crop technology efforts is around PHB, the simplest member of the broad PHA family of biopolymers. While applications for PHAs have focused mainly on their use as biodegradable bioplastics, these polymers have a number of other unique features that will allow their use in other applications, such as the production of chemical intermediates and their use as value-added animal feeds. We are working to create proprietary systems to produce PHB in high concentration in the leaves of biomass crops or in the seeds of oilseed crops for these multiple applications. In doing this, we have been developing tools and intellectual property around enhancing the photosynthetic capacity of plants, a core capability for improved crop yield.

Our work in crops highlights our leading edge technical capabilities, and researchers at Metabolix have designed novel, multi-gene expression systems to increase production of PHB in plant tissue. The science behind this shift in metabolism is complex since the goal is to significantly increase production of PHB to be viable at industrial scale without impairing the ability of the plant to thrive in its natural environment. In 2011, Metabolix was awarded a $6 million grant by the U.S. Department of Energy ("DOE") to engineer switchgrass to produce 10 percent PHB, by weight, in the whole plant and to develop methods to thermally convert the PHB-containing biomass to crotonic acid and a higher density residual biomass fraction for production of bioenergy. During 2012 and 2013, Metabolix was awarded additional grants for leading-edge crop research targeting multi-gene expression and transformation of plants including important biofuel and food crops. Funding from these additional grants is expected to total approximately $1.6 million and will run through 2014.

In 2014, we plan to continue to identify additional sources of grant funding while we advance research under our existing grants, focused primarily on increasing PHB production in switchgrass and developing a thermal conversion process to recover crotonic acid. We may also seek to establish

alliances with industry partners to commercially exploit this platform and the intellectual property we have gained in our work in this area. However, there can be no assurance that we will be successful in establishing or maintaining suitable partnerships.

Formation of Metabolix

Metabolix was formed in 1992 to leverage the ability of natural systems to produce complex polymers from renewable resources and to serve the growing needs of society for inherently biodegradable plastic materials and chemicals that do not deplete finite fossil resources.

Polymers are found in nature in a wide range of organisms including microbes, plants and animals. PHAs also naturally occur within certain organisms, including microbes. These microbes use PHA to store energy and consume it for food when needed. It is this characteristic that gives our PHA biopolymers their inherent biodegradability.

Though PHA polymers are found in nature, their production in wild-type bacterial strains is inefficient and costly for commercial purposes. In 1981, Imperial Chemical Industries ("ICI") developed a controlled fermentation process using a wild-type bacterial strain to produce a PHA copolymer that they introduced under the trade name Biopol. While a handful of applications were developed for Biopol, the cost to produce the polymer using the naturally occurring bacterial strains that were available at the time was prohibitively high and its performance properties were limited. Commercialization was not possible, but the Biopol assets remained largely intact and were eventually sold to Monsanto, Inc.

By the late 1980s, tools for genetic engineering had advanced significantly, and microbes were already being genetically designed to produce various products, such as protein drugs. At the Massachusetts Institute of Technology, Dr. Oliver Peoples, our Chief Scientific Officer, working in the lab of Dr. Anthony Sinskey, a member of our Board of Directors, identified the key genes required for the biosynthesis of our PHA biopolymers and invented and patented the first transgenic systems for their production. The use of genetically engineered production organisms, instead of wild-type strains, broadly expanded the number of compositions that could be made and enabled the tight level of control and high efficiency and productivity that are required for cost-effective industrial manufacturing.

Metabolix was formed to exploit these discoveries. In order to fully capture the opportunity, we acquired Monsanto's patent estate related to biobased plastics, which included the Biopol assets, in 2001. We have since fully developed an integrated manufacturing process using transgenic strains for fermentation and a proprietary recovery process. This integrated manufacturing process is available for use in commercial manufacturing going forward. We have also developed proprietary plastic formulation technology, and are developing a platform technology for co-producing plastics, chemicals and energy in crops such as switchgrass, oilseeds and sugarcane. In addition, we are applying our proprietary technologies to our industrial biobased chemicals platform.

Our Technology and Core Capabilities

We believe we have one of the most advanced capabilities to perform metabolic pathway engineering in the world and that we are skilled in our ability to integrate the biotechnology we develop into large scale industrial production processes. In particular, we believe that we have unique capabilities with respect to harnessing the metabolic pathways involved in the production of a wide range of bioplastic monomers and the ability to polymerize, accumulate and harvest these bioplastics from living cells. We are also developing key capabilities in the areas of biopolymer product development and customer focused technical support.

We have demonstrated that our technology and core capabilities enable us to:

- design and engineer living organisms to perform a series of chemical reactions that convert a feedstock to an end product in a highly efficient and reliable manner;
- integrate those organisms into reliable, large scale industrial fermentation processes;
- develop highly efficient recovery technology to separate the end product from the fermentation broth;
- tailor the properties of our end product from that process to suit customer needs;
- develop new applications and commercial opportunities for these products;
- develop new formulations and compounds based on these products; and
- provide sales and technical support to our customers who use these products.

Product Development Process

Biology and Genetic Engineering

We have identified and chromosomally inserted into organisms a series of genes to produce several enzymatic proteins, and have done so in such a way that they are expressed to execute a series of reactions in a balanced manner to produce PHAs as the end-product of interest. This work is at the forefront of a scientific discipline referred to as "Synthetic Biology" which has become the focus of intense research and design activities. There have been many academic and venture-backed entrants in this general field, primarily targeting either advanced cellulosic ethanol or next generation biofuel technologies. We believe that we have advanced capabilities based on over 20 years of development taking early stage gene/pathway discovery through the entire value delivery chain through to implementation of that technology at commercial scale. In addition, we have developed core competencies in plant science, plant transformation and the development of advanced multigene expression technologies for introducing novel, multiple trait synthetic pathways into biomass plant crops.

Industrial Fermentation Process Engineering

We have tightly integrated our fermentation scale-up research capabilities with our genetic engineering capabilities to create a feedback loop where data from fermentation experiments can readily influence microbial design and where microbial engineering approaches can guide the fermentation group to structure the optimal protocols (recipes) for running fermentations. Based on this technology we have demonstrated the ability to produce a range of different biopolymers on a common fermentation platform.

Chemical Process Engineering

Another element of our product development process involves process chemistry and chemical engineering to separate the biopolymer from the biological cell material once fermentation is complete. We have a dedicated team that has developed a proprietary process for recovery of PHA biopolymer, and that process produces PHA biopolymer at a high level of purity without damaging the structure of the polymer and has operated effectively at a commercial scale. We have successfully demonstrated our ability to efficiently isolate the range of polymers necessary to meet and expand our range of target applications. These polymers can be routinely produced free from cell debris and processed into high quality resin pellets.

Our capabilities in fermentation and recovery for producing PHA biopolymers have been successfully translated to the development of biobased industrial chemicals. We have demonstrated

fermentation at pilot and industrial scale and recovered GBL using a proprietary thermolysis process in tonnage quantities. When fermentation is completed, our novel recovery process known as "FAST" (fast-acting, selective thermolysis) converts the biopolymers, poly-4-hydroxybutrate ("P4HB") for C4 chemicals and poly-3-hydroxyproprionate ("P3HP") for C3 chemicals, directly to GBL and acrylic acid, respectively. The FAST recovery process is a proprietary, low-cost, energy-efficient approach to recover high-purity biobased chemicals directly from dried or whole fermentation broth. Our FAST process has been demonstrated at both lab and tonnage pilot scale for C4 chemicals, and we have successfully demonstrated recovery of acrylic acid from dried biomass using the FAST process in our Cambridge laboratory. We believe our technology is differentiated and that it allows diversification of feedstock from existing fossil sources to renewable sources on a cost competitive basis. For chemicals, we can tailor products and purity levels to meet customer and market needs.

Polymer Science and Product Development

In the area of biopolymers, our product development process involves tailoring polymer properties and polymer blends to provide the desired end product properties and meet the processing requirements for specific customer applications. Our product development team has considerable expertise in polymer science and to date has developed advanced formulation and processing technology for a wide variety of customer applications and different processing methods. We will continue to work with customers to optimize formulations to conform to their commercial specifications as commercialization of our biopolymers expands.

In sum, we have successfully integrated capabilities in biology, genetics, fermentation process engineering, chemical engineering and polymer science to provide high value biobased and biodegradable plastic solutions to customers. We believe this integrated set of capabilities will be a source of competitive advantage. These same capabilities are being applied to our biobased chemicals and plant crop programs, where we have developed additional opportunities that we plan to advance through industry partnerships and/or government grants.

Business Strategy

Our goal is to build a commercially successful specialty biopolymers business, with attractive margins, based on the unique properties of our PHA biopolymers. At the same time, by advancing our biobased chemicals and plant crop programs, we aim to be a leader in discovering, developing and commercializing economically attractive, environmentally sustainable alternatives to petroleum-based chemicals. To achieve this goal, we are building a portfolio of programs that we believe will not only provide an attractive slate of commercial opportunities and create value for our business, but will also generate leading and competitive intellectual property positions in the field. However, our present capital resources are not sufficient to fund our planned operations for a twelve month period. We will, during 2014, require significant additional funding to continue our operations. Based on our current plans and projections, which remain subject to numerous uncertainties, we anticipate raising $50-60 million over the next 12-15 months. The timing, structure and vehicles for obtaining this level of financing are under consideration and may be accomplished in stages. Although we cannot guarantee the availability of financing, our goal is to use this capital to build an intermediate scale specialty materials business based on PHA additives that serves as the foundation for our longer-range plans and the future growth of our business. Failure to receive additional funding will force us to delay, scale back or otherwise modify our business and manufacturing plans, sales and marketing efforts, research and development activities, and other operations, and/or seek strategic alternatives. Key elements of our strategy include:

Creating a Product Portfolio of Proprietary Biopolymers and Biopolymer Formulations—Our strategy is to deliver solutions to customers in specialized market segments that can be served competitively by the distinctive properties of our biopolymers and biopolymer formulations. Our biopolymer products may

be biobased or biodegradable, or both, and will be used where their unique physical properties provide a competitive advantage. Through several years of interaction with customers, we have developed biopolymers and biopolymer formulations suitable for a variety of processing methods and applications. We are now focusing on developing biopolymers as performance additives or property modifiers (typically with loading in the range of one to ten percent in the end product application) for existing polymers such as PVC, PVC recyclate and PLA. In these high value applications our PHA technology may enhance processing, properties and performance of PVC and recycled PVC, as well as increase performance of PLA while retaining clarity, biobased properties and compostability of the resulting material. In addition, our technology may allow us to develop new formulations to extend the use of our biopolymers into uses such as latex applications.

Establishing a Supply Chain for PHA Biopolymers—We continue to evaluate a number of commercial scale PHA manufacturing options. This is a key element of the supply chain necessary to support our business strategy. While we evaluate these options, we are having PHAs toll produced at pilot scale to validate improvements in our technology and provide small quantities of our latest high performance PHA biopolymers for applications development with customers. We are also investigating a capital-efficient, intermediate-scale commercial production capability for PHA biopolymers. This approach would complement our commercial strategy, where we are focused on building a presence in key application spaces that are intended to demonstrate sufficient market demand to base-load a low cost, world-scale manufacturing facility for high performance PHA biopolymers.

Sourcing Complementary Biopolymers—Our biopolymers supply chain also includes the sourcing of several biobased or biodegradable polymers that are complementary to PHA, including PBAT, PBS and PLA, from third parties like Samsung and NatureWorks LLC. We use these complementary polymers to develop and market proprietary formulations and compounds for customers who are looking for biobased and/or biodegradable solutions in film, bag and functional biodegradation applications. This approach allows us to leverage the value of our existing inventory of PHA that we acquired from the Telles joint venture, while at the same time broadening our understanding of the unique performance enhancing benefits that can be gained by using PHAs as a performance enhancing additive or modifier in formulations based on other plastics.

Managing Existing Inventory—We expect to work closely with core customers to provide them with access to existing inventory acquired from Telles, as new PHA manufacturing and complementary polymer sourcing and the associated supply chain are established. We will also use some inventory as well as product from our pilot scale toll production to continue product development activities targeted at high value applications for our product.

Market Positioning and Technical Support—We have focused our technical and business development team to support existing customers and to educate and develop the prospective customer base for our biopolymer products. This team is focused on positioning our biopolymers as premium priced, specialty materials that are environmentally attractive alternatives to petroleum-based plastics and lower performance bioplastics. The focus of this effort is to build a pipeline of customers across a range of applications. It is our goal to establish customer relationships that will lead to a committed stream of demand for our biopolymers as we establish the supply chain for new PHA manufacturing.

Continuing Microbial Research and Process Development—We have identified opportunities to improve our PHA production strains and our fermentation and recovery processes. We believe that significant reductions in the operating and capital cost to manufacture our PHA biopolymers can occur as we successfully exploit these opportunities. We believe that our technology is robust and we expect to be able to successfully transfer these improvements to commercial scale production.

Extending Our Technology to Sustainable Production of Biobased Chemicals and Intermediates —We believe that our technology can be applied to produce important biobased commercial chemicals and

chemical intermediates through biological conversion of sustainable feedstocks such as sugars. Through our integrated bio-engineered chemicals program, we have conducted research into the development of sustainable solutions for chemicals and intermediates, including widely used C4 and C3 industrial chemicals. Our unique FAST process enables very efficient recovery of targeted molecules based on our PHA technology. We are seeking to establish strategic partnerships or other collaborations to advance these programs commercially.

Advancing Plant Crop Research—We believe that we are pioneering the technical process of introducing multigene traits into plant crops for the production of plastics and chemical intermediates directly in the plant. Our plant crop platform is currently in the research phase, with substantial funding provided by government grants. We are in the process of capturing intellectual property gained in our work in crops and expect to seek strategic partnerships or other collaborations to advance these programs commercially, while we continue work in plant crops under government grants.

Partnering our Programs—As appropriate, we may seek to leverage our technology and establish strategic partnerships with one or more industrial companies that can provide access to resources and infrastructure valuable for commercializing our plant crop and/or industrial chemicals platforms. These partnerships may take the form of large-scale strategic collaborations, or more limited collaborations with partners having complementary strengths, for example in biorefinery or chemical operations or in a relevant market space such as agriculture. We will also continue to seek funding through government grants or other government programs aimed at promoting development of biobased plastics and fuels.

Furthering our Leading and Competitive Intellectual Property Position—We have built a patent estate around our platform technologies and a variety of inventions relevant to the commercialization of PHA biopolymers, biobased chemicals and the production of bioplastics and biobased chemicals in plant crops. We continue to extend this patent estate within our core business as well as around other commercial opportunities in the area of biobased plastics, chemicals and plant crops. We have licensed our technology, and where appropriate, we will continue to license our intellectual property to others as a way to advance our business strategy or capitalize on our technology in fields outside our direct areas of interest.

Market Opportunity

Our targeted markets of plastics and chemicals offer substantial opportunity for innovation and value creation. These are very large markets facing substantial pressures to reduce energy consumption, greenhouse gas emissions and the overall impact on the environment. The limited long-term availability of fossil fuels and volatile oil prices are driving the demand for more sustainable and renewable alternatives in plastics and chemicals manufacturing.

The Plastics Market

The world's annual consumption of plastic materials has increased from around 5 million tons in the 1950s to nearly 240 million metric tons today and is estimated to be $0.5 trillion in size. Durability and lightweight properties, as well as a range of applications from packaging to engineering-grade automotive materials, continue to drive this exponential growth in the plastics market. However, a majority of plastics are made from fossil feedstocks, including crude oil and natural gas. As a result, plastic pricing is impacted by fluctuations in the cost of fossil feedstocks. A more concerning issue is that these fossil feedstock-based plastics do not biodegrade, instead congesting landfills and polluting the oceans. According to the U.S. Environmental Protection Agency, an estimated 32 million tons of plastic entered the U.S. municipal solid waste stream in 2011. It is estimated that 20-25 percent of landfill weight is plastics. In addition, every year approximately 45,000 tons of plastic waste ends up in the world's oceans.

According to the Freedonia Group, global demand for biobased and biodegradable plastics will grow 19 percent annually to 950,000 metric tons in 2017. The Freedonia Group cites consumer preferences for more sustainable materials and improved performance of bioplastic resins and commodity plastics produced from biobased sources as the key factors driving this growth. Market research institute Ceresana predicts that the global bioplastics market will reach revenues of more than $5.8 billion in 2021, reflecting average annual growth rates of 18.9 percent. According to Ceresana, Europe was responsible for one-third of the market in 2013, followed by North America and Asia-Pacific. Strong growth is also predicted for South America as a result of production increases in Brazil. Through 2017, starch-based bioplastics and polylactic acid ("PLA") will account for the majority of bioplastic demand, followed by other biobased plastics, such as PHA/PHB, cellulose, polybutylene succinate ("PBS") and fossil fuel-based biodegradable plastics, representing approximately 40 percent of global bioplastic demand. Ceresana expects non-biodegradable plastics, such as polyethylene, made from renewable feedstocks to increase their market share from the 8 percent seen in 2010 to more than 48 percent of the bioplastics market by 2018.

According to Global Industry Analysts, Inc., the global market for PVC is approximately $70 billion based on an estimated 35 million metric tons produced annually. PVC is a versatile polymer used in a broad range of applications including construction materials, wire and cable, and medical disposables. Significant amounts of additives are added to PVC formulations (typically 20-40% of the formulation) to improve processing, plasticization and performance of PVC. For decades, low molecular weight phthalates have been used as performance additives to plasticize PVC. Research has shown that phthalates can migrate out of PVC over time, creating concerns about exposure to phthalates as well as deterioration in the properties of the PVC as it ages. We believe there is demonstrated market interest in biobased performance additives for PVC that can reduce or eliminate the use of phthalates while maintaining or improving the performance of PVC. According to a study on additives conducted by Freedonia, the total additives market for PVC is approximately 7 million MT per annum. Plasticizers represent approximately 72% of this market. Our market focus is on the property modifier additives segment that represents a market of 700 ktpa (kilo tonnes per annum) or approximately $3.5 billion annually according to the Freedonia study.

According to the German-based research firm nova-Institut, the global production of PLA is currently 180,000 tons per annum and is expected to reach 800,000 tons per annum by 2020.

The Chemicals Market

There are a large number of chemicals products which enable the manufacture of most industrial and consumer goods ranging from automobiles to food packaging. Major chemicals products include building block chemicals, such as ethylene and propylene, and specialty chemicals such as lubricating oil enhancers and pharmaceutical intermediates. The vast majority of chemicals produced today use non-renewable resources such as oil, natural gas or coal as their basic raw material.

Under the umbrella of the global chemicals market are conventional C4 and C3 industrial chemicals, with an estimated market of more than $10 billion annually.

The global C4 chemicals market is estimated at approximately $3 billion. C4 chemical products are used in a wide range of applications including engineering plastics, fabrics and fibers, personal care products and in semiconductor manufacturing. Conventional C4 chemicals are produced almost entirely from fossil-based hydrocarbons such as natural gas, oil or coal.

Global demand for C3 chemicals is estimated at greater than $8 billion per year based on sales of nine billion pounds annually with growth driven by increasing demand in Asia, including China and India. Conventional C3 chemicals, including crude acrylic acid, glacial acrylic acid and acrylates, are used in products such as superabsorbent polymers ("SAPs"), water treatment chemicals, coatings (decorative, automotive, and paper) and adhesives. Markets and Markets, a global market research and

consulting company, anticipates the global market for acrylic acid and its derivatives to grow to $14 billion by 2018.

Recent initiatives by the U.S. and European Union are fostering the growth in investment in the development of biobased chemicals. The governments of both the U.S. and the European Union are promoting the research and development of biobased chemicals as sustainable alternatives that reduce waste, create jobs, and drive innovation and growth. In Europe, governmental efforts have been met by private corporations to create the Biobased Industries Private Public Partnership (BBI), a pledge of billions of euros to bring biobased chemicals and fuels from the laboratory to marketplace. The 2014 Farm Bill recently signed into law in the U.S. includes important provisions for the continued growth of the biobased chemicals sector. For the first time, the Farm Bill has been expanded to support biobased chemicals, opening up the potential to fund important advances in sustainable alternatives to petroleum based chemicals. Government investment in these research efforts plays an important role in driving innovations in the development of biobased chemicals and encouraging continued public adoption of biobased and sustainable chemicals in consumer products.

Biopolymers Platform

Overview

Metabolix is engaged in product and market development of a biopolymer platform, based on technology developed by Metabolix and early commercialization efforts conducted through the Telles joint venture with ADM. Following the termination of our commercial alliance with ADM early in 2012, we restructured the biopolymers business, retaining a core team in our biopolymers group to provide continuity with technology, manufacturing process and markets. We worked closely with customers during this transition to understand their product needs and to match them to available inventory. In addition, we have held constructive discussions with various potential manufacturing partners for PHA biopolymers and expect to select a site in 2014 for intermediate scale commercial manufacturing. In 2014, in our biopolymers business we also expect to continue with a focused approach to performance additive applications, including high value film and bag applications, and functional biodegradation applications. However, failure to receive additional funding will force us to delay, scale back or otherwise modify our business and manufacturing plans, sales and marketing efforts, research and development activities and other operations, and/or seek strategic alternatives.

Former Alliance with Archer Daniels Midland Company

From 2004 through 2011, we developed and began commercialization of our PHA biopolymers through a technology alliance and subsequent commercial alliance with ADM Polymer Corporation, a wholly-owned subsidiary of ADM, one of the largest agricultural processors in the world. The Commercial Alliance Agreement between Metabolix and ADM Polymer specified the terms and structure of the alliance. The agreement governed the activities and obligations of the parties to commercialize PHA biopolymers, which have been marketed under the brand names Mirel™ and Mvera™. These activities included the establishment of a joint venture company, Telles, to market and sell PHA biopolymers, the construction of a manufacturing facility capable of producing 110 million pounds of material annually (the "Commercial Manufacturing Facility"), the licensing of technology to Telles and to ADM, and the conducting of various research, development, manufacturing, sales and marketing, compounding and administrative services by the parties.

On January 9, 2012, ADM notified us that it was terminating the commercial alliance effective February 8, 2012. ADM had undertaken a strategic review of its business investments and activities and made the decision to focus resources outside of Telles. As the basis for the decision, ADM indicated to us that the projected financial returns from the alliance were too uncertain.

Upon termination of the alliance, Metabolix intellectual property licenses to ADM Polymer and Telles ended, with Metabolix retaining all rights to its intellectual property. ADM retained its Commercial Manufacturing Facility located in Clinton, Iowa, previously used to produce PHA biopolymers for Telles.

After termination of the Commercial Alliance Agreement, the parties entered into a settlement agreement in which the parties agreed to specific terms related to the winding up and dissolution of Telles. Under this settlement agreement, we purchased certain assets of the joint venture for $2,982,000 including Telles's entire inventory, exclusive and perpetual rights to all of Telles's trademarks, and all product registrations, certifications and approvals for Telles's PHA biopolymers. We also retained all co-funded equipment previously acquired by Metabolix and situated at locations other than the Clinton, Iowa Commercial Manufacturing Facility.

Current Capabilities and Scope of our Operating Business in Biopolymers

Our biopolymers team has expertise in the key areas required to maintain and grow an operating business, as well as carrying forward the core knowledge of the biopolymer technology, manufacturing process and markets that we developed during our alliance with ADM. We have established a subsidiary located in Cologne, Germany to serve as a focal point for our commercial activities in Europe. We continue to work closely with customers to understand their needs and to match them to available inventory and newly developed products.

We plan to continue to build our supply chain through supply agreements that provide us access to biobased and/or biodegradable biopolymers, supplementing our remaining inventory of PHA material that was acquired from Telles. We are continuing pilot manufacturing of our proprietary PHA materials to develop and validate applications for high value PHAs in target markets of: (i) performance additives, including film and bag applications; and (ii) functional biodegradation. Our aim is to validate high value applications and secure commitments to base-load our commercial manufacturing facilities.

During 2013 we engaged in discussions and collaborations with potential customers and suppliers in Asia to expand our relationships there. In July 2013, we formalized a Memorandum of Understanding ("MOU") with Samsung Fine Chemicals, a company based in South Korea with a significant role in the biopolymers industry. Samsung is pursuing a similar strategy to Metabolix, offering a complementary product slate and complementary regional positioning. Metabolix is focused on the U.S. and Europe while Samsung has a strong market presence in Korea and across Asia. Metabolix has been working with Samsung on biodegradable polymers since early 2012. Under the MOU, we each fund our respective costs separately, but work together with the goal of expanding the global market for biodegradable polymers. Our MOU with Samsung provides access to additional biodegradable polymers that we can use in resin formulations designed to deliver the best performance and value to targeted customer applications. The MOU does not represent a legally binding commitment by either party, and it may be terminated at any time by either party without liability or obligations to the other party.

In 2012 we signed an agreement for demonstration scale production with Antibióticos SA, a toll manufacturer based in León, Spain, and began technology transfer. In 2013, Antibióticos entered a process for financial restructuring. It became apparent that Antibióticos is no longer a viable option for Metabolix due to a lack of progress in their financial restructuring. Therefore, we are no longer considering it as a manufacturing option and have instead shifted our focus to alternative sites.

In 2012 and 2013, we conducted due diligence on several potential PHA biopolymer manufacturing sites and expect to select a manufacturing site in 2014, properly sized to our business. When our PHA supply chain is fully established, this captive capacity will be combined with access to additional biobased and biodegradable materials sourced from third parties, which will allow us to continue formulating proprietary high-performance products for our target market segments.

Metabolix Biopolymers Business Strategy

Customers and Markets	Focus on strategic customers and high value segments as foundation for business—initial areas of emphasis include performance additives, including for film and bags, and functional biodegradation.
Manufacturing Scale	Initially targeting intermediate capacity of several kilotonnes annually, then expand capital investment and capacity according to demand. Ultimately establish one or more world-scale plants of 10-20 ktpa capacity according to demand.
Business Partners	Engage multiple partners with expertise in relevant application spaces, such as modified PVC, modified PLA, and latex coatings.
Supply Chain	Toll production of pilot scale quantities of our latest PHA products, together with sourcing of complementary biobased and/or biodegradable polymers for proprietary formulations and compounds.
Technology Base	Deploy state-of-the-art technology with improved yield and recovery processes.
Value Chain	Create integrated chain controlled by Metabolix, potentially with chemicals integration.

Mirel biopolymers were produced successfully at industrial scale for two years under the joint venture with ADM. The product was produced at very high quality and in a targeted range of grades suited to different customer uses. Going forward, we see the potential to deploy our latest technology into industrial production at an initial scale that is matched to developing customer demand with the intention to add capacity in tandem with the growth outlook for our products. We marketed our Mirel and Mvera biopolymers for more than two years on behalf of Telles and gained traction during that time with over 50 customers. Going forward, we plan to focus our marketing and product development activities initially on providing high value material to customers in key application spaces based on the performance, biodegradability and biobased content attributes of our PHA biopolymers in the areas of: (i) performance additives, including film and bag applications, and (ii) functional biodegradation.

The Value Proposition of Metabolix Biopolymers

Our strategy is based on the performance of our materials. With proprietary biopolymer formulations we aim to address unmet needs of our customers and leverage the distinctive properties of our PHAs to improve critical product qualities and enable our customers to enhance the value of their products and/or achieve savings through their value chain.

As such, we are positioning our line of Mirel biopolymers as advanced specialty materials that offer a broad and attractive range of properties and processing options compared to other bioplastics. Our Mirel biopolymers can also be used to deliver biobased content in an end use application, as an additive or modifier to improve performance of other polymers including conventional plastics (e.g. PBAT, PVC) or other bioplastics (e.g., PLA and starch) and to deliver the required biodegradation profile of an end use product.

When compared with other performance additives and biodegradable plastics (whether biobased or petroleum based), we believe our Mirel biopolymers can be differentiated and offer unique benefits in end use applications based on the following factors:

Biobased Content—Our Mirel PHA biopolymers products are produced using fermentation which converts industrial sugar (a biobased feedstock) into PHA biopolymer. This biobased composition can be used in neat form, or can be combined with other polymers to make plastic formulations and compounds with targeted amounts of biocontent. This can be a key factor in an end use customer's material selection.

Biodegradability—Mirel biopolymers are available with a range of biodegradation profiles. For example, our PHA biopolymers will biodegrade due to the action of microbial agents in a wide variety of conditions, including home and industrial compost systems, soil, anaerobic environments such as those found in anaerobic digesters and septic systems, and marine and fresh water environments. The rate and extent of biodegradability will depend on the specific ingredients included in the particular Mirel biopolymer formulation, the size and shape of the articles made from our Mirel biopolymers as well as the specific end-of-life environment. However, like all bioplastics and organic matter, Mirel biopolymers are not designed to biodegrade in conventional, non-active landfills. Many plastics marketed as biodegradable only degrade in a controlled municipal industrial compost facility.

Performance Enhancement—Our PHA biopolymers possess a unique chemistry that can be used as an additive or modifier to improve the performance, properties and processing of other polymer materials including PVC, PVC recyclate, and PLA. While biobased content and biodegradability are not the drivers of enhanced performance, they are added benefits for end use applications where improved performance is required and biobased content and/or biodegradability is desired.

Physical Properties—Similar to petroleum-based plastic, Mirel biopolymers possess a particularly broad range of physical properties, varying from hard and stiff to soft and flexible.

Processability—Our biopolymers can be processed in many types of existing conventional polymer conversion processes that are currently being used for petroleum-based plastic.

Upper Service Temperature—Mirel biopolymers will withstand temperatures in excess of 100^{o} C, i.e., the boiling point of water, an important threshold. Some formulations of Mirel biopolymers can withstand temperatures up to 130^{o} C.

Resistance to Hydrolysis—While Mirel biopolymers will biodegrade in marine and fresh water environments through natural processes mediated by microbes, they are resistant to chemical hydrolysis with cold or hot water over the intended life span of the product. This is an important distinction with many other biodegradable polymers where the primary mechanism is hydrolysis followed by further microbial degradation of the residues.

Product Form—Our PHA biopolymers can be produced in pellet form (for further processing by customers), in densified form or as a blend with other biobased and/or biodegradable materials. We may also provide our biopolymers in other forms as may be determined by our customers.

Biobased and Biodegradability Certification

Mirel biopolymers in neat form have the advantage in the marketplace of being both biobased and biodegradable while having comparable functional properties to petroleum-based polymers. However, because there is sometimes confusion about the use of the terms "biobased" and "biodegradable" in the marketplace, we conform to following industry guidelines when making these claims.

We certify our biopolymer resin products individually based on their specific composition and formulation. We sell certain Mirel biopolymers that have received the Vinçotte certifications of "OK Biodegradability Soil" for natural soil biodegradability, "OK Biodegradability Water" for fresh water biodegradability, "OK Compost" for compostability in an industrial composting unit, and "OK Compost Home" for compostability in home composting systems. Vinçotte is the recognized European authority on materials inspection, certification, assessments and technical training. We believe that Mirel biopolymers are the only non-starch bioplastics to gain all four Vinçotte certifications. In addition to the Vinçotte certifications, certain Mirel biopolymers have been certified compostable by the Biodegradable Products Institute ("BPI"), an independent North American certifier of compostable material. BPI certification shows that Mirel biopolymers comply with the specifications established in the American Society for Testing and Materials standard ASTM D6400 for composting in a professionally managed composting facility. Our Mvera biopolymers are designed to be compostable and some have received the Vinçotte certification of "OK Compost" and/or the BPI certification for compostability in an industrial composting unit.

Regulatory Requirements

Some applications for which Mirel biopolymers may be suitable, such as food packaging, plastic-coated paper cups and lids for disposable cups, involve food contact, which, in the United States, is regulated by the U.S. Food and Drug Administration ("FDA"). The FDA process for food contact requires the submittal of a dossier, which is made up of a number of extraction studies conducted under specific guidelines.

Certain Mirel biopolymers, including Mirel F1005, F1006 and F3002, have been cleared for use in non-alcoholic food contact applications. The conditions of use range from frozen food storage to boiling water up to 100°C, including microwave reheating. These products are suitable for a wide range of food service and packaging applications including paper coatings, bags, cups, trays, squeeze bottles and injection molded parts like caps, closures and disposable items such as forks, spoons, knives, tubs, trays and hot cup lids. The clearance also includes products such as housewares, cosmetics and medical packaging.

Trends and Opportunities for Metabolix Biopolymers

Branded Products

The market for branded products and services with attributes of environmental responsibility and sustainability is an emerging business opportunity. We expect that by co-branding products that use Mirel and Mvera, Metabolix and its customers will be able to jointly promote environmental responsibility. We believe that producers are positioning products as environmentally responsible or superior to gain a competitive advantage as they believe consumer preferences are shifting. We believe the use of Mirel in branded products either directly or for packaging will facilitate and enhance our customers' efforts to exploit this trend.

Regulated Markets

Regulatory action, such as bans, taxes, subsidies, mandates and initiatives, to encourage substitution of renewable and sustainable materials for petroleum-based incumbents is increasing. It is notable that there are bans on single-use plastic bags being mandated in areas around the world. In the geographies where regulatory drivers exist, we expect that Metabolix biopolymers can meet requirements for biobased content or biodegradability and create a driver for the use of our biopolymers over conventional petroleum-based plastics. In addition, producers are now anticipating regulatory change and are initiating programs to introduce sustainable materials to their products prior to or in an attempt to forestall implementation of such regulation. We believe that as awareness of

practical and affordable biobased and biodegradable alternative grows, the pace of regulatory change may accelerate.

Market Segments for Metabolix Biopolymers

Although there are significant opportunities across many market segments, we are initially focusing on key application spaces based on the performance, biodegradability and biobased content attributes of our PHA biopolymers in the areas of: (i) performance additives, including film and bag applications, and (ii) functional biodegradation. These markets have the strongest need for materials that are biobased and biodegradable either for branding value, because of regulatory requirements or because biodegradability offers a useful property such as new end-of-life solutions like composting or anaerobic digestion. In addition, our biopolymers impart improved performance qualities when used as an additive and blended with other polymers including PVC and PLA. To approach these market segments, we expect to conduct certain focused product and market development activities, including working with potential customers to determine their specific needs, and we have begun the process of qualifying our material for certain customer applications. As new inventory becomes available, we expect that these activities will accelerate.

The performance profile of our biopolymer products is closely matched to the needs of the following market segments:

Performance Additives

We are developing PHA biopolymers as performance additives. Metabolix biopolymer resins are either miscible or highly compatible as a dispersed modifier with a broad range of biobased and petroleum-based materials and can improve a range of performance attributes such as impact strength, heat resistance, barrier properties, processability and plasticization through blending with these materials. We are initially focused on developing polymeric modifiers for PVC, a polymer with a diverse use pattern ranging from construction materials to medical applications and an estimated global demand of approximately 35 million metric tons per year. In PVC, a compounded product is typically formulated with about 20-40% performance additives used to improve the processability and performance of PVC products.

We are developing biobased polymeric modifiers for semi-rigid and flexible PVC compounds. We have shown that our polymeric modifiers can provide toughness, plasticization and permanence in addition to enhancing processing when added to PVC. We have also shown that our bioplastic polymeric modifiers have the potential to improve PVC toughness beyond that achievable with leading polymeric modifiers and at the same time serve as a non-migrating, non-phthalate high molecular weight plasticizer. We are now working with customers to identify suitable applications for the technology that may allow us to broaden the addressable market opportunity for our materials, beyond our traditional focus on those markets requiring biodegradation.

In 2012 we sampled and launched I6001, a polymeric modifier for PVC, and in 2013 we developed and launched I6003rp, a new polymeric modifier for recycled PVC, and worked with customers to identify suitable applications for this product where it can be used to upgrade the physical properties, processing, and value of PVC recyclates. In 2013, we also continued to develop polymeric modifiers based on our PHA technology suitable for enhancing the performance of targeted polymers. Future applications include toughening and enhanced ductility of polylactic acid (PLA) where the ability to address the inherent brittleness of this material could significantly expand the potential applications that can be served. We have shown that we can produce new PHA rubber modifiers that can improve the performance of PLA while retaining the clarity, biobased properties and compostability of the resulting material. We believe that Metabolix has the potential to develop a family of polymeric property modifiers that have improved functionality compared to current fossil derived materials while

also being biobased and biodegradable. In 2014, we expect to work with prospective customers to continue developing data supporting their applications of interest using PVC and PLA.

Film and Bag Applications

The compostable bag market is growing as brand owners and retailers are motivated by regulatory and consumer demand. Compostable bags are the single largest application use for compostable materials. The driver for this market is the ongoing need to reduce and eliminate organics (food scraps and yard waste) from municipal waste streams and landfills. Applications such as single-use retail bags, industrial can liners, kitchen compost bags and organic lawn and leaf bags have a strong need for the industrial compostability offered by our Mvera biopolymer products. In 2012, we developed and launched a certified film grade resin intended for use in bag and film applications where industrial composting is the desired final route of disposal. In 2013, we expanded our portfolio of products with the development and launch of two new compostable film grade resins, Mvera B5010 and Mvera B5011, a resin for producing transparent film and bags. We plan to continue to develop additional Mvera products suited to the needs of the marketplace for film and bag applications. Our innovative Mirel rubber modifiers also have the potential to expand the application space for PLA which may lead to new business opportunities. Their capability to modify and improve PLA demonstrates performance that is comparable to traditional non-renewable rubber modifiers without compromising the renewable nature of PLA or key features of clarity and compostability.

Functional Biodegradation

Our biopolymers are unique biobased materials for applications requiring functional biodegradation. Since PHAs are produced naturally in living organisms such as microbes, our PHA biopolymers can be biodegraded by similar microbes present in ambient environments such as soil and water. Our biopolymers can also be formulated or compounded with other biodegradable biopolymers to provide customers with new product performance and biodegradation profiles.

Soil compostable films and parts in horticulture and agriculture—The soil biodegradability profile of PHA makes our products uniquely suited for resin products with horticultural and agricultural uses. Applications such as plant pots, vine clips, sod netting and agricultural film have a strong need for the soil biodegradability functionality offered by certain of our Mirel biopolymer resin grades. In these applications, the natural biodegradation process for Mirel biopolymers in the soil can provide a sustainable alternative to conventional plastics and save costs related to labor and disposal of conventional plastics.

Marine and aquatic degradable films and parts—The biobased composition combined with marine degradation properties of Mirel biopolymers are unmatched in the industry. Mirel biopolymer resins degrade in the marine environment due to microbial activity. Metabolix has worked on several projects with government agencies and universities to validate the use of Mirel biopolymers in shoreline applications.

Studies have noted that the world's oceans show increasing levels of persistent plastic particles of a size ingestible by marine creatures at the bottom of the food chain. Larger plastic items are also accumulating in substantial quantities in certain parts of the ocean, and marine birds and mammals have been found dead from ingesting or getting tangled in plastic debris. Mirel biopolymers allow brand owners the opportunity to offer a product that will biodegrade if inadvertently released into the environment or in applications where in-situ marine degradation is a key attribute (e.g., erosion control).

Water treatment—Metabolix has worked with customers to develop pond water and aquarium water treatment systems based on the biodegradation and microbial activity of our biopolymers.

Latex coatings—A unique form of our PHA biopolymers may be used as a biobased and biodegradable coating for paper and cardboard. If development of this product is successful, it has the potential for applications such as repulpable coated corrugated cardboard.

Additional applications—Metabolix has worked with customers on a variety of additional applications where biodegradation of the polymer is a performance requirement.

Industry Landscape

The plastics market is large, with many established players. The market has grown around the chemical processing of oil and natural gas, and is concentrated in the conventional, non-biodegradable petroleum-based segment.

Established companies in this segment include Dow Chemical, DuPont, BASF, Ineos, LyondellBasell, SABIC and Mitsubishi Chemical, among many others. The price of conventional petroleum-based plastic is volatile, as it is dependent on petroleum as a key manufacturing input. In addition, the non-biodegradability of conventional petroleum-based plastics makes them persistent in and harmful to the environment and creates significant waste.

A few companies, such as DuPont, DSM, Arkema and Braskem, have taken steps toward plastics based on renewable resources and are commercializing conventional plastics that use building blocks derived from renewable resources as components. However, these products are generally not biodegradable. Other producers of petroleum-based plastics, including BASF and Samsung, now produce certain petrochemical grades that are biodegradable in industrial compost environments, but are otherwise persistent in the environment and are still subject to the volatility of oil and natural gas prices.

Our most comparable competitors are in the biodegradable, renewable resource based plastic segment, within which there are three distinct technologies: PHA, PLA and starch-based biodegradables. Just as a wide variety of different petroleum-based plastics now serve the needs of the market; we believe that these three product classes are more complementary than competitive. We believe that of these three product classes, Mirel biopolymers offer a broad range of properties and processing options, and will address a large proportion of opportunities as an environmentally attractive yet functionally equivalent alternative to conventional petroleum-based plastics. Unlike PLA and most starch-based biodegradables, Mirel biopolymers can:

- biodegrade in natural soil and water environments, including the marine environment;
- biodegrade in industrial or home composts;
- remain functional in a wide range of temperature settings; and
- not break down in everyday use.

Companies active in the PHA plastics segment include Kaneka, Tianan, Tianjin Green Biomaterials, EcoMann, Meredian, and a minor producer in Brazil. The key players in PLA and starch-based biodegradable plastics include NatureWorks, Mitsui Chemical, Teijin, Novamont and Biome. Our PHA biopolymers can be blended with many of these materials to improve their performance and other characteristics. In addition, there are companies that compound blends of various materials, including bioplastics.

Summarized below is an overview of the industry landscape for conventional, biobased and biodegradable polymers.

Biodegradability	Based on Petroleum	Based on Renewable Resources
Biodegradable	*Synthetic Biodegradable:* BASF (Ecoflex™, Ecovio™) Dupont (Biomax™) ShowaDenko (Bionolle™) Mitsubishi Chemical (GS Pla) Samsung (PBAT, PBS) Zhejiang Hisun (PBAT)	*PHA:* Metabolix Kaneka (PHBH) Tianan (PHBV) Tianjin (SoGreen™) EcoMann (EM) Meredian (Nodax PHA) *PLA:* NatureWorks (Ingeo™) Mitsui Chemical (Lacea™) *Starch-based:* Novamont (Mater-Bi™) Biome
Non-biodegradable	Conventional petroleum-based plastics	Dupont (Sorona™ (~30% biobased) Dow Chemical (Soybean Polyurethanes) Arkema (Nylon 11) Braskem (polyethylene)

Biobased Industrial Chemicals Platform

Overview

The combined global market for conventional C4 and C3 industrial chemicals is estimated at more than $10 billion annually. These fundamental building block industrial chemicals have application to a broad range of industrial and consumer products. We view this market as attractive both commercially and technologically for the development and deployment of our PHA fermentation and FAST recovery technologies. We believe our technology can be used to produce these chemicals from renewable feedstocks cost effectively as high value, biobased replacements in the industry supply chain for conventional chemicals produced with oil priced at or above $90 per barrel.

Our objective is to develop and commercialize biobased industrial chemicals starting with C4 and then C3 through partnerships with industry leaders. Our business strategy is to form strategic alliances where our partners contribute fermentation and manufacturing capabilities, access to market channels in the value chain and related assets, and Metabolix contributes intellectual property, proprietary technology and process engineering capabilities to enable commercialization of a new source of supply for competitive, cost-effective biobased industrial chemicals targeted to high value applications to meet rising global market demand.

In our biobased industrial chemicals platform, our C4 program is most advanced in development toward commercialization. We have developed our proprietary fermentation and FAST recovery processes to produce biobased gamma-butyrolactone ("GBL") at industrial scale. Through an established synthetic route, our biobased GBL can be converted to biobased butanediol ("BDO"), the workhorse of the C4 industry value chain that enables access to broad segments of the market.

We have also demonstrated that our technology is directly applicable to the manufacture of biobased acrylic acid, the primary industrial chemical in the C3 industry value chain. We have focused initially on engineering production strains for fermentation and validating our FAST recovery process for production of biobased acrylic acid.

Market for C4 and C3 Industrial Chemicals

Global demand for conventional C4 industrial chemicals is estimated at approximately $3 billion annually. C4 chemical products include BDO and related chemicals including GBL, tetrahydrafuran ("THF") and pyrrolidones. These chemicals are used at industrial scale in a wide range of applications including engineering plastics, resins and solvents, auto parts, spandex, fabrics and fibers, personal care products and in semiconductor manufacturing. Today, conventional C4 chemicals are produced almost entirely from fossil-based hydrocarbons such as natural gas, oil or coal. Industry experts currently estimate that the first commercial scale supply of biobased C4 chemicals might begin to enter the marketplace in the 2014-2015 timeframe and will initially represent a small fraction of the C4 market.

Today, the global market for C3 chemicals, primarily acrylic acid, is estimated at $8 billion annually. The primary synthetic route for making conventional acrylic acid is the use of propylene oxidation which converts propylene to crude acrylic acid and glacial acrylic acid. This synthetic route to make acrylic acid relies almost entirely on fossil-based hydrocarbons. Based on our internal market assessments, we believe that there will be a clear and growing demand from brand owners for biobased acrylic as it is used in consumer-facing products such as paints and coatings, diapers and detergents.

Metabolix PHA Technology and FAST Recovery Process

Conventional C4 and C3 chemicals are produced through established synthetic routes utilizing petrochemical-based feedstocks. Our process for creating biobased industrial chemicals involves engineering metabolic pathways into microbes that in a fermentation process produce specific biopolymers that serve as precursors for the C3 and C4 chemicals. Through our PHA technology, we are able to control the microbe biology to achieve high concentrations of specific, naturally-occurring biopolymers that accumulate inside cells as they metabolize sugars. This intracellular accumulation of the biopolymers inside the microbes is a unique and differentiating aspect of our technology. When the fermentation is completed, a novel recovery process known as "FAST" (fast-acting, selective thermolysis) that we have developed converts the biopolymers, poly-4-hydroxybutrate ("P4HB") for C4 chemicals, poly-3-hydroxyproprionate ("P3HP") for C3 chemicals, directly to GBL and acrylic acid, respectively. In addition, known and commonly practiced catalytic processes can be used to cost effectively convert GBL to BDO.

The FAST recovery process is a proprietary, low-cost, energy-efficient approach to recover high-purity biobased chemicals directly from dried or whole fermentation broth. Our results show that 80 percent of the dry weight of the microbial cells from fermentation is PHA. We have shown that we can recover 90-95 percent pure chemical product in a single recovery step. In addition, the residual biomass from the fermentation step is converted to char, and can be recycled and combusted for process heat, making the FAST process energetically self-sustaining. Further, the water evaporated during the drying of the whole fermentation broth can be recycled after the product is isolated to eliminate wastewater and minimize make-up water requirements.

We believe our technology is differentiated and that it allows diversification of feedstock from existing fossil sources to renewable sources and this will offer cost advantages. Based on our understanding of industry economics, inputs and cost drivers, we believe that our FAST process for biobased industrial chemicals may produce economic advantages in deployment such as lower capital investment and lower manufacturing cost under future anticipated oil price scenarios. We have the ability to repurpose existing fermentation assets and leverage our common FAST recovery process platform to manufacture a range of chemicals and intermediates allowing a low capital entry strategy. In addition, with the elimination of fossil fuel inputs with our process, we believe our biobased C4 and C3 chemicals can be produced with a significantly lower carbon footprint as compared to conventional chemicals, provided renewable energy is used to power fermentation. Finally, our dried biomass step provides the option for the safe transportation and handling of the chemicals and optimization of the

recovery plant location. We believe this could be a particularly attractive option for C3 chemicals, where acrylic acid can be a challenging product to ship and store.

Progress in our Biobased C4 Research and Development Program

We began our program in biobased industrial chemicals in 2007 when we received an Advanced Technology Program ("ATP") award from the U.S. Department of Commerce's National Institute of Standards and Technology. The program was designed to create a class of biobased routes for producing important industrial chemical intermediates, reducing our nation's dependence on fossil-based feedstocks and providing the nation with competitive advantages in polymers, chemicals and agriculture, all while reducing adverse environmental impacts.

The $2 million award funded our integrated bio-engineered chemicals ("IBEC") program to develop sustainable solutions for widely used C4 industrial chemicals. Over the three year grant period of our IBEC project, we achieved all of the program milestones. We demonstrated that we could engineer microbes to produce a range of PHA polymers though the fermentation of plant-derived sugars. We also demonstrated that these biopolymers could be converted into a variety of C4 industrial chemicals. At the conclusion of the project in 2009, we had developed a scalable first generation industrial production microbe.

Beginning in 2010, we focused our efforts on the technology and commercial development of the specialty C4 chemicals segment that includes GBL as well as BDO, THF and the pyrrolidones. Our initial focus has been to develop a commercial-scale process to directly produce biobased GBL. We may also use an additional existing synthetic route to convert biobased GBL to biobased BDO, allowing us to access this broad segment of the C4 market.

During 2010, we completed our first large-scale fermentation demonstrating scale-up of biobased GBL at 60,000 liters, with the strain performing essentially as expected based on the prior laboratory results. Our recovery and purification efforts continued and we made progress toward production of biobased GBL samples for shipment to potential customers for testing. We also expanded exploratory partnership discussions focusing on both upstream and downstream aspects of the value chain.

In 2011, we continued refining and scaling our fermentation and thermolysis processes and conducted an in-depth analysis of the market opportunity for "green" GBL. We successfully conducted a trial fermentation run at the 60,000 liter industrial scale. We recovered the biomass from the production runs and, using our FAST technology, extracted tonnage quantity of our biobased GBL for use in pilot testing by potential customers.

We tested the GBL product produced using our PHA fermentation and FAST technologies and confirmed that the material met the existing industry specifications for conventional GBL. The existing industrial chemical specification benchmark for GBL is 99.7% purity for general chemical grade. In addition, we sent our GBL samples to a private laboratory to test for the presence of Carbon 14 (a test for fossil carbon), and the results using this ASTM test showed that the carbon in our GBL samples meets the requirements for being designated "renewable."

We also worked with a prospective downstream partner and demonstrated at laboratory scale the ability to convert our biobased GBL to N-methyl-2-pyrrolidone ("NMP") and meet industry specifications. According to industry sources, over 70 percent of GBL consumption is for the manufacture of NMP, which is used as a solvent in lube oil extraction, electronics applications, paint strippers, magnetic wire coatings and engineering resins. In 2012, we completed the preliminary design for a commercial scale plant including all of the components of our fermentation and recovery process to generate biobased GBL.

In 2013, we continued to achieve technical milestones in the program. We demonstrated a process to efficiently recover ultra-high purity bio-GBL from fermentation broth. The level of purity achieved

with this method exceeds the purity typically achieved with commercial production of petroleum-based GBL. We also showed that our fermentation process and P4HB technology can be adapted to produce deuterated bio-GBL which has the potential to impart differentiated specifications into bio-GBL. In addition, we demonstrated the robust nature of our microbial strains for production of biobased chemicals with the successful conversion of second generation, or cellulosic, sugars to PHA precursors for C4 chemicals.

Based on meeting our internal milestones of producing biobased GBL at industrial scale and meeting or exceeding industry specifications, we have continued to conduct a series of exploratory partnership discussions focusing on both upstream and downstream aspects of the C4 value chain.

In conjunction with our technical progress, we expect to continue discussions with industry leaders with the goal of forming the industry alliances necessary to successfully bring our biobased C4 industrial chemicals, including GBL and BDO, into commercial production. In addition, we are currently exploring potential GBL applications in high value-added specialty segments where high purity and biobased molecules are in high demand and can provide customers with additional competitive advantages.

Progress in our Biobased C3 Research and Development Program

We are targeting the significant market for C3 chemicals, and specifically the production of biobased acrylic acid for deployment of our technology based on our success demonstrating our technology to produce biobased C4 chemicals. Our initial efforts were focused on establishing a clear technology and intellectual property strategy for production of C3 chemicals with only minor modifications to existing manufacturing infrastructure. The additional consideration we have anticipated early in our program to develop acrylic acid is the inherent difficulty working with the molecule as it is highly reactive and corrosive and has to be handled under proper conditions.

Our objective is to develop and commercialize a new route to the production of biobased acrylic acid and acrylic esters with the goal of being cost competitive with fossil-based C3 chemicals at an oil price of $90 per barrel. Our strategy is to develop the new process and, given downstream processing and market considerations, work with a strategic partner early in the development cycle to develop the technology for successful commercialization.

In 2011, we undertook a market analysis of the global market for acrylic acid to assess the market participants, renewable technology competition, economics, intellectual property status and end markets. We reached the conclusion that producing biobased C3 chemicals could be very attractive for deployment of our technology.

Based on this analysis, we began research and development in 2011 to extend our PHA fermentation and FAST recovery technology into the production of acrylic acid. We successfully engineered microbes that accumulate poly-3-hydroxypropanoate ("P3HP") and we demonstrated small scale (20-30L) fermentation. We also developed refinements to our FAST recovery technology adapted to the unique properties of acrylic acid. In our process, P3HP is produced by fermentation, and then the dried biomass is converted directly to acrylic acid at commercially attractive yields. A major advantage of our process is that it avoids any additional chemical conversion steps.

In 2012, Metabolix continued fermentation and optimization of microbial strains for testing. We also continued development and optimization of our FAST recovery technology to produce biobased acrylic acid or acrylate esters to match the chemical specifications of conventional chemical counterparts. In addition, we successfully scaled-up recovery of acrylic acid from dried biomass using the "FAST" process in our Cambridge laboratory and provided sample quantities of dried biomass for conversion to biobased acrylic acid for customer evaluation.

In 2013, we continued to make improvements to the performance of our microbial strains and achieved attractive yield levels for producing C3 at entry level economics. In addition, we demonstrated the robust nature of our microbial strains for production of biobased chemicals with the successful conversion of second generation, or cellulosic, sugars to PHA precursors for C3 chemicals.

In 2014, we expect to continue partnership discussions to bring our biobased acrylic acid into commercial production.

Industry Landscape

The current global market for C4 and C3 chemicals is based almost entirely on fossil-based hydrocarbon feedstocks. In general, the conventional C4 and C3 markets in Europe, North America and Japan are led by several established international companies.

The nature of the chemicals industry historically follows a well-established trend where innovation and technology evolve to leverage new feedstocks that provide cost advantage. As potential alternatives to the primary synthetic routes currently deployed by the industry, there are several alternative biobased routes being developed to produce biobased C4 and C3 chemicals. Based on our analysis of the market, we believe that over time, new capacity built to produce C4 and C3 will increasingly be based on technology that leverages renewable and less volatile feedstocks.

Our closest competitors are developing biobased technologies to produce biobased C4 and C3 through a variety of routes at industrial scale. These include Genomatica, Myriant, BioAmber, OPX/Dow, Cargill/Novozymes, and Novomer.

Summarized below is an overview of the industry landscape for conventional and biobased C4 and C3 industrial chemicals.

Industrial Chemical Market	Top 5* Producers (Conventional Routes)	Biobased Alternative Routes
C4 (GBL, BDO, NMP, and THF)	BASF Dairen Chemical ISP (Ashland) LyondellBasell Mitsubishi *Represent >60% of the global C4 (BDO) market	Genomatica (Direct to BDO fermentation) Metabolix (PHA Fermentation) Myriant, Bioamber, Reverdia, (Succinic acid production followed by conversion to BDO)
C3 (Acrylic Acid)	Arkema BASF Dow (Rohm & Haas) LG Chemical Nippon Shokubai *Represent >50% of the global C3 acrylic acid market	Arkema (Glycerol catalytic conversion to Acrylic Acid) OPX/Dow, Cargill/Novozymes/BASF (3HP Fermentation) MATRIC (Chemical Conversion of Lactic Acid) Novomer (ethylene oxide conversion to B-propiolactone followed by conversion to acrylic acid—only biobased if ethylene oxide is derived from EtOH) Genomatica (fumaric acid metathesis with ethylene) Metabolix (PHA Fermentation)

Crops Platform

Overview

The petroleum industry is based on a global model where fossil resources are extracted from the earth. Once captured, the fossil resource feedstock is transported to refineries where 90 percent is used to produce fuel and the remaining 10 percent is used to produce industrial chemicals, including plastics. With the increasing worldwide demand for fuels from renewable sources and the emerging demand for biobased plastics, chemicals and chemical intermediates, we believe there is a long term opportunity to create an alternative to the petroleum model based on the co-production of renewable energy and chemicals from crops.

Our objective is to develop patented technology to enable commercialization of renewable fuel and chemicals co-produced in proprietary crops. Our business strategy is to leverage our intellectual property and PHA technology in microbes and make the research adaptations and breakthroughs needed to create proprietary systems to produce poly-3-hydroxybutrate (PHB, a subclass of PHAs) in the leaves and stems of high yielding biomass crops or in the seeds of industrial oilseeds. One of our approaches leverages our FAST recovery technology to convert PHB in plant biomass to chemicals and densified biomass for conversion to biofuels with favorable economics. In oilseed crops, we are also investigating the use of PHB-containing meal as an enhanced feed supplement to deliver prebiotic effects and enhanced feed conversion ratios.

Over the course of this program, which began more than ten years ago, we have engaged in collaborations with academic institutions and secured more than $16 million in government grants to advance this research. In our research to date, we have achieved proof of concept for our proprietary technology for producing PHB bioplastics in demonstration crops and crops of agronomic interest including tobacco, oilseeds, switchgrass and sugarcane. We have also filed for intellectual property covering our inventions and have been awarded more than 30 patents to date. Further, our researchers and academic collaborators have published our research results in peer reviewed journals.

In 2011, we were awarded a grant by the U.S. Department of Energy ("DOE") for development of Renewable Enhanced Feedstocks for Advanced Biofuels and Bioproducts ("REFABB") to demonstrate the production and recovery of chemicals from crops. This four year, $6 million grant is expected to enable us to increase yields of PHB in switchgrass plants and conduct pilot testing to convert the PHB-containing biomass to crotonic acid using our FAST recovery process. Crotonic acid can be converted to a variety of chemical intermediates that are typically produced from non-renewable resources. In addition to the value of the biomass for producing biofuel, this process could create a pathway from crotonic acid to chemical intermediates that are currently valued at over $80 billion annually. In 2012 and 2013, we were awarded additional funding for leading-edge crop research targeting multi-gene expression and transformation of plants including important biofuel and feed crops. This funding is expected to total approximately $1.6 million and will run through 2014. In 2014, we plan to continue to identify additional sources of grant funding while we advance research under our existing grants, focused primarily on increasing PHB production in switchgrass and developing a thermal conversion process to recover crotonic acid. We may also seek to establish alliances with partners to commercially exploit this platform and the intellectual property we have gained in our work in this area. However, there can be no assurance that we will be successful in establishing or maintaining suitable partnerships.

PHB and FAST Recovery Technology for Crops

PHAs are a natural component of numerous organisms in multiple ecosystems. In microbes, PHAs are natural intracellular stores of carbon and energy that accumulate as discrete granules within a cell when faced with a nutrient limitation. These granules of biopolymer can be isolated and converted to materials. Based on prior work demonstrating the production and recovery of PHA from microbial

fermentation, researchers at Metabolix are developing proprietary genetic engineering systems to produce PHB from non-food crops. Precise insertion of novel pathways in plants is challenging due to the need for and the complexity of introducing multiple foreign genes and the lengthy time required for the cross-breeding of plant generations having new gene systems. Our researchers have designed expression systems for PHB using three genes (thiolase, reductase and PHA synthase) which are required to increase production of PHB in plant tissue. A key consideration in the work is to shift metabolism in the plant to increase PHB production but to not impair the ability of the plant to thrive and reproduce. We have developed different genetic engineering systems for different plant crops including tobacco, oilseeds, switchgrass and sugarcane. In research to date in our program, we have achieved the following levels of PHB as a percent of dry weight in our plants: Tobacco (18% in leaves; 9% in whole plants), Oilseed/Camelina (15% in seeds), switchgrass (7.7% in leaves) and sugarcane (4.8% in leaves).

Our current research in biomass crops is primarily focused on increasing PHB yield in switchgrass to a target of approximately 10 percent dry weight of the plant. Switchgrass is a commercially and ecologically attractive, non-food energy crop that is indigenous to North America. It is a high density perennial crop that can grow on marginal land and does not require substantial inputs in terms of water or fertilization. It also has the capability of sequestering significant amounts of carbon dioxide from the atmosphere in its root systems.

In tandem with this work, our researchers have been developing methods based on our FAST recovery technology which uses heat to convert PHB in the plant biomass to crotonic acid that can be recovered and then serve as a platform chemical to produce other chemical intermediates such as propylene, butanol and maleic anhydride. We envision that the residual densified biomass produced using the FAST process will be a higher energy, transportable feedstock (similar to coal) that can be readily integrated with existing power generation or for gasification to produce infrastructure compatible bioenergy.

Our current research in oilseed crops is focused on increasing PHB yields in camelina seeds and increasing carbon capture and deposition of storage compounds. These research efforts are targeted towards producing bioplastics and/or enhanced animal feeds with prebiotic effects.

Recent Progress

We are conducting research under a $6 million REFABB grant by the DOE to engineer switchgrass producing 10 percent by weight PHB in the whole plant and to develop methods based on our FAST recovery technology to thermally convert the PHB-containing biomass to crotonic acid and a higher density residual biomass fraction for production of biofuel. Crotonic acid is a platform chemical that can be readily converted through simple, known chemical conversion steps to a range of commodity chemical intermediates including propylene, butanol and maleic anhydride, which are currently valued at over $80 billion annually.

To date, we have reported PHB production of up to 7.7 percent in switchgrass leaf tissue using proprietary genetic engineering and breeding technology. We have also achieved promising results in the model plant tobacco where PHB production of up to 18 percent dry weight in leaf tissue and nine percent dry weight in whole plants have been achieved. The approaches demonstrated in previous work will be applied to the ongoing research with the goal of increasing the levels of PHB to 10 percent in switchgrass; a level we believe could be commercially viable, if attained. In 2014, we expect to continue to advance research focused on increasing PHB production in switchgrass and developing a thermal conversion process for crotonic acid.

In 2014, we plan to continue to identify additional sources of grant funding while we advance research under our existing grants, focused primarily on increasing PHB production in switchgrass and developing a thermal conversion process to recover crotonic acid. We may also seek to establish

alliances with partners to commercially exploit this platform and the intellectual property we have gained in our work in this area. However, there can be no assurance that we will be successful in establishing or maintaining suitable partnerships.

The Potential Benefits to Producing Renewable Chemicals and Energy from Plant Crops

We believe we can engineer a commercial system that co-produces biobased bioplastics or chemicals along with biomass for conversion to energy (such as steam, electricity or biofuels such as ethanol or biodiesel). This concept, called a "biomass biorefinery," is based on the co-production of energy and higher value biobased plastic or biobased chemicals. It is analogous to today's energy/petrochemical industry where synthetic plastics are derivative value-adding products along with energy produced from petroleum and natural gas. We believe the co-production of biobased plastics or chemicals with energy in an integrated system will offer superior economic value and efficiency as compared to a single product system.

We envision the following potential benefits to our approach:

Integrated Value Chain Opportunity for Biobased Chemicals and Biofuels: In a fully realized Metabolix crop-based bio-industrial production system, the value chain begins with the growth of crops containing PHB followed by polymer recovery to produce bioplastics or biobased chemicals and processing of residual biomass for generating energy or biofuel.

Crop Diversification: The production of PHB in crops provides an opportunity for farmers to diversify their crop plantings to a crop with higher income potential and potential for reduced risk exposure.

Source of High Value Biobased Chemicals: PHB can be used directly as bioplastic and to derive a number of valuable, biobased industrial chemicals. Adoption of PHA bioplastic materials derived from our PHB in consumable goods would avoid long term accumulation of plastic waste in landfills, roadsides, oceans and inland waters. PHA bioplastics are fully biodegradable under ambient, marine and anaerobic conditions. Production of biobased industrial chemicals from crops would serve to respond to the emerging demand for renewable content and would decouple chemical production from the market volatility for petroleum feedstocks.

Greenhouse Gas Reduction with Bioenergy Production: The cultivation of crops producing PHB can play a vital role in the reduction of global or local greenhouse gas emissions. Petrochemical plastics and chemicals require petroleum as both a feedstock and for process energy during production. In contrast, using crops to produce PHB uses CO_2 from the atmosphere to form the biopolymer in addition to generating energy results in a reduced carbon footprint.

Intellectual Property

Our continued success depends in large part on our proprietary technology. We rely on a combination of patent, copyright, trademark and trade secret laws, as well as confidentiality agreements, to establish and protect our proprietary rights.

We own approximately 380 issued patents and approximately 140 patent applications worldwide, and we have licensed from third parties approximately 25 issued patents and patent applications worldwide. In 2013, we filed approximately 50 patent applications worldwide including applications for five new inventions covering biodegradable films, PHAs as additives for polymer applications, and the use of PHA-containing biomass to produce high purity biobased industrial chemicals as well as alternate feedstocks for producing novel biobased chemicals from genetically engineered microbes. We were also granted or allowed 15 patent applications in 2013, seven in the United States of America and eight internationally. The inventions covered under these patents include high PHA producing oilseeds, chemically inducible expression of genes in plants, biodegradable polymer/PHA blends, and formulations for a variety of polymer applications. We continue to seek and evaluate new technologies for possible licensing opportunities which may enhance our Company's business competitiveness.

Our extensive patent portfolio covers, among other things, the fundamental biotechnology needed to produce Mirel biopolymers and a range of biobased chemicals as well as biopolymer compositions, processes and derived products. The licensed patents and patent applications include patents covering our core technology that are owned by Massachusetts Institute of Technology ("MIT") and exclusively licensed to us. Under the MIT licensing agreement, we pay annual license fees. In addition, under this licensing agreement, we are obligated to pay royalties on sublicensing revenue and sales of products, if any, covered by the licensed patents. Our intellectual property portfolio includes patents directed to compositions of polymers, genes, vectors, expression systems in plants and microbes, polymer compositions of matter and formulations, devices, coatings and films, as well as methods of manufacture and use. The terms of such patents are set to expire at various times between 2014 and 2032.

In 2007, we entered into an exclusive license agreement with the University of Massachusetts at Lowell ("UMass Lowell") relating to United States Patent No. 5,883,199. The licensed technology was developed by inventors at UMass Lowell. We have granted nonexclusive sublicenses under this patent to BASF Corporation to produce and market blends of PLA and polybutylene adipate terephthalate ("PBAT") and to NatureWorks, LLC to make, use and sell blends of PLA with certain other polymers, including polybutylene succinate ("PBS"). In 2007 we entered into an agreement granting Abbott Laboratories an exclusive worldwide patent license for the use of our multi-gene expression technology in pharmaceutical product applications. We expect that from time to time we may grant further licenses and sublicenses under our patents and the patents we have licensed from third parties as appropriate and consistent with the commercialization of our own products.

Our registered U.S. trademarks include *Metabolix*, the Metabolix four-leaf design, *Telles*, *Mirel*, the Mirel heart-leaf design, *Mvera* and *Biopol*. These marks and certain other trademarks have also been registered in selected foreign countries.

Employees

As of December 31, 2013, we had 98 full-time employees. Of those employees, 59 were in research and development, 12 were in sales and marketing and 27 in general and administration. Among our research staff, 20 hold Ph.D.'s and 31 hold masters' or bachelors' degrees in their respective disciplines. Our technical staff has expertise in the following areas: microbial genetics, bioinformatics, metabolic engineering, systems biology, plant genetic engineering, fermentation process engineering, chemical engineering and polymer science and engineering. Most of our employees are located in Massachusetts. None of our employees are subject to a collective bargaining agreement. We consider our relationships with our employees to be good.

Research and Development Expenses

During the years ended December 31, 2013, 2012 and 2011, we spent approximately $19.1 million, $23.2 million and $24.4 million, respectively, on Company-sponsored research and development activities.

Corporate and Investor Information

Our company was incorporated in Massachusetts in June 1992 under the name Metabolix, Inc. In September 1998, we reincorporated in Delaware. Financial and other information about our company is available on our website (http://www.metabolix.com). The information on our website is not incorporated by reference into this annual report on Form 10-K and should not be considered to be part of this annual report on Form 10-K. We make available on our website, free of charge, copies of our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities

Exchange Act of 1934, as amended (the "Exchange Act") as soon as reasonably practicable after filing such material electronically or otherwise furnishing it to the Securities and Exchange Commission (the "SEC"). In addition, the public may read and copy any materials that we file with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Washington, D.C. 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. Also, our filings with the SEC may be accessed through the SEC's website at www.sec.gov.

ITEM 1A. RISK FACTORS

Our operations and financial results are subject to various risks and uncertainties that could have a material adverse effect on our business, financial condition, results of operations and the trading price of our common stock.

Risks Relating to our Financial Position

We will need to secure additional funding and may be unable to raise additional capital on favorable terms, if at all.

The Company held unrestricted cash, cash equivalents and investments of $19.2 million at December 31, 2013. Our present capital resources are not sufficient to fund our planned operations for a twelve month period, and therefore, raise substantial doubt about our ability to continue as a going concern. We will, during 2014, require significant additional funding to continue our operations. Failure to receive additional funding could cause us to cease operations, in part or in full. We believe that our existing resources and the cash to be generated from existing grants and expected product sales will be sufficient to meet our projected operating requirements into the third quarter of 2014. However, any significant costs incurred to establish a commercial biopolymer manufacturing facility will shorten this liquidity horizon. We continue to face significant challenges and uncertainties and, as a result, our available capital resources may be consumed more rapidly than currently expected due to: (a) lower than expected sales of our biopolymer products as a result of slow market adoption; (b) increases in capital costs and operating expenses related to the establishment and start-up of commercial manufacturing operations either on our own or with third parties; (c) changes we may make to the business that affect ongoing operating expenses; (d) changes we may make to our business strategy; (e) changes in our research and development spending plans; and (f) other items affecting our forecasted level of expenditures and use of cash resources. In any event, we will require significant additional financing to continue to fund our operations and to support our capital needs. We will attempt to obtain additional funding through public or private financing, collaborative arrangements with strategic partners, or through additional credit lines or other debt financing sources. However, there is uncertainty regarding whether we can successfully execute these actions, and we can provide no assurance that we will. Furthermore, we expect that if we issue equity or debt securities to raise additional funds, our existing stockholders will experience dilution, and the new equity or debt securities may have rights, preferences and privileges senior to those of our existing stockholders. If we raise additional funds through collaboration, licensing or other similar arrangements, it may be necessary to relinquish valuable rights to our potential products or proprietary technologies, or grant licenses on terms that are not favorable to the Company. Without additional funds, we will be forced to delay, scale back or eliminate some of our sales and marketing efforts, research and development activities, or other operations and potentially delay product development in an effort to provide sufficient funds to continue our operations, and/or seek strategic alternatives. If any of these events occurs, our ability to achieve our development and commercialization goals would be adversely affected.

We have a history of net losses and our future profitability is uncertain.

With the exception of 2012, when the Company recognized $38.9 million of deferred revenue from the terminated Telles joint venture, it has recorded losses since its inception, including our fiscal year ended December 31, 2013. At December 31, 2013, our accumulated deficit was approximately $273 million. Our operating losses since inception and the insufficiency of our existing capital resources to fund our planned operations for a twelve month period raise substantial doubt about our ability to continue as a going concern. As a result, our independent registered public accounting firm included an explanatory paragraph in its report on our financial statements as of and for the year ended December 31, 2013 with respect to this uncertainty. Since 1992, we have been engaged primarily in research and development and early-stage commercial activities. Because we have a limited history of commercial operations and we operate in a rapidly evolving industry, we cannot be certain that we will generate sufficient revenue to operate our business and become profitable.

Our ability to generate revenues in the near-term is highly dependent on the successful commercialization of our biopolymer products, which is subject to many risks and uncertainties as described below. This is our first and only product family in the market. Our other technologies are still in the early stages of development. We may never be able to manufacture and sell other products developed with our technology on a commercial scale. The success of our biobased chemicals and plant crop programs will depend on our ability to obtain suitable partnerships and collaborations for commercialization of those technologies, and our ability to obtain funding from government grants and other sources. Even if we are able to secure manufacturing arrangements for our biopolymers, we expect that it will take time for our manufacturing to ramp up to an economical scale while the market for our products expands. As a result, we expect to have significant losses and negative cash flow for at least the next several years, as we incur additional costs and expenses for the continued development and expansion of our business, including the costs of establishing manufacturing capacity and ongoing expenses of research and product development. The amount we spend will impact our ability to become profitable and this will depend, in part, on the number of new products that we attempt to develop. We may not achieve any or all of these goals and, thus, we cannot provide assurances that we will ever be profitable or achieve significant revenues.

Even if we can successfully manufacture and sell our products, whether we will be able to generate a profit on any of these products is highly uncertain and depends on a number of factors including the cost of production, the price we are able to charge for these products, and the emergence of competing products.

Our use of losses may be subject to limitations and the tax liability of our Company may be increased.

At December 31, 2013, the Company had net operating loss carryforwards (NOLs) for federal and state income tax purposes of approximately $237 million and $149 million, respectively. The Company's existing federal and state net operating loss carryforwards begin to expire in 2019 and 2014, respectively. The Company also had available research and development credits for federal and state income tax purposes of approximately $5 million and $4 million, respectively. Utilization of the net operating loss and research and development credit carryforwards may be subject to a substantial annual limitation under Section 382 of the Internal Revenue Code of 1986 due to ownership change limitations that have occurred previously or that could occur in the future. These ownership changes may limit the amount of net operating loss and research and development credit carryforwards that can be utilized annually to offset future taxable income and tax, respectively. The Company completed an evaluation of its ownership changes through December 31, 2012 and has determined that its NOL and R&D credit carryforwards as of that date were not subject to an annual limitation under Section 382. The Company has not currently completed an evaluation of ownership changes through December 31, 2013. To the extent an ownership change occurs in the future, the net operating loss and credit carryforwards may be subject to limitation. Because we will, during 2014, require significant additional

funding to continue our operations, we may enter into a financing transaction which would be considered an ownership change for purposes of Section 382. Accordingly, no assurance can be given that our NOLs will be fully available to offset future taxable income.

Risks Relating to our Biopolymers Business

We may not be able to obtain sufficient biopolymer manufacturing capacity on a timely or economical basis.

After termination of the ADM commercial alliance, we retained certain pre-commercial manufacturing equipment for pilot plant production, but we do not currently have a facility for commercial scale manufacturing of biopolymers. We continue to evaluate various manufacturing options. However, our biopolymer manufacturing technology is highly complex. Construction of a new manufacturing facility or modification of an existing facility to make it suitable for our manufacturing process could be time-consuming and expensive. We cannot assure you that we will be able to successfully manufacture biopolymers in a timely or economical manner, or at all. We cannot assure you that we will have the necessary funds to finance the construction or modification of a commercial manufacturing facility, or that we will be able to develop a manufacturing infrastructure in a timely or economical manner, or at all. We may depend on obtaining commercial partners to finance and/or construct commercial manufacturing facilities for biopolymer production.

Because our commercial manufacturing experience is limited, our future biopolymer manufacturing costs are uncertain and may ultimately be higher than we expect. Further, because of the lead-time required for construction of a manufacturing facility, we may have to make capital investments before we have proven the market demand for our products. If the commercial manufacturing capacity that we build or otherwise obtain is not appropriate to the level of market demand, manufacturing costs may not be economical. If we fail to develop adequate manufacturing capacity and expertise or fail to manufacture biopolymers economically at large scale or in commercial volumes, the commercialization of our biopolymers and our business, financial condition and results of operations will be materially adversely affected. Further, if we fail to obtain or maintain third party toll compounding services on acceptable terms, or to establish our own compounding facility to provide such services in a timely and economical manner, the commercialization of our biopolymers and our business, financial condition and results of operations will also be materially adversely affected. There is the further risk that the quality of the commercial product manufactured for us may not be acceptable on a consistent basis.

We may not be able to obtain raw materials in sufficient quantities or in a timely manner.

We expect that the production of our PHA biopolymer products will require large volumes of feedstock. ADM was the sole source of the dextrose (corn sugar) that was the primary feedstock for the production of PHA biopolymers under the ADM commercial alliance. With the termination of that alliance, we are now free to explore the use of other feedstocks. However, we cannot predict the future availability of any particular feedstock or be sure that we will be able to purchase it in sufficient quantities, at acceptable prices, or in a timely manner. Many of our current and anticipated products are blends and formulations that incorporate biopolymers and other materials sourced from third parties. If these materials cannot be obtained in sufficient quantities or at acceptable prices, our ability to produce our products may be impaired, the cost of our formulations may increase, and our business will be adversely affected.

Our biopolymer products may not achieve market success.

We currently have limited customer commitments for commercial quantities of our biopolymer products. Some prospective customers are currently evaluating and testing our products prior to making large-scale purchase decisions. The successful commercialization of our biopolymers is also dependent

on our customers' ability to commercialize the end-products that they make from our biopolymers, which may never gain market acceptance.

Market acceptance of our products will depend on numerous factors, many of which are outside of our control, including among others:

- public acceptance of such products;
- our ability to produce products of consistent quality that offer functionality comparable or superior to existing or new polymer products;
- our ability to produce products fit for their intended purpose;
- our ability to obtain necessary regulatory approvals for our products;
- the speed at which potential customers qualify our biopolymers for use in their products;
- the pricing of our products compared to competitive products, including petroleum-based plastics;
- the strategic reaction of companies that market competitive products;
- our reliance on third parties who support or control distribution channels; and
- general market conditions.

We currently have limited marketing, sales and distribution experience and capabilities. Our future revenues will be materially dependent upon our ability to identify and hire new employees and augment our own resources by entering into distribution arrangements and collaborations with third parties. If we are unable to develop or obtain access to sales and marketing and distribution expertise, sales of our biopolymer products, if any, may be adversely affected.

Other Business Risks

We may not be successful in the development of our crop-based platform or our industrial chemicals program.

We are at an early stage of developing the technology and processes to produce biobased chemicals in plant crops. Our biobased chemical development efforts are also at an early stage. The technological challenges associated with these programs are extraordinary and we may not be able to overcome these challenges. Completion of such development work will require a significant investment of both time and money, if it can be completed at all. In order to obtain the financial resources to complete this work, we will rely on government funding and strategic collaborations, which may not be available on acceptable terms, if at all.

We cannot predict the costs of producing biobased chemicals in plant crops or through our fermentation and recovery technologies, given the stage of development of these programs. The anticipated methods for manufacturing biobased chemicals are highly complex processes in which a variety of difficulties may arise and there are extensive regulatory requirements to be met. The success of our industrial chemicals program will also depend on the cost of the sugars that we will use as feedstocks, relative to the price of petroleum. Given these uncertainties, we may not be able to successfully produce biobased chemicals in plant crops or through our fermentation and recovery technologies, in an economical manner.

We may rely heavily on future collaborative partners.

We may enter into strategic partnerships to develop and commercialize our current and future research and development programs with other companies to accomplish one or more of the following:

- obtain capital, equipment and facilities,
- obtain funding for research and development programs, product development programs and commercialization activities,

- obtain expertise in relevant markets,
- obtain access to raw materials, and/or
- obtain sales and marketing services or support.

We may not be successful in establishing or maintaining suitable partnerships, and we may not be able to negotiate collaboration agreements having terms satisfactory to us or at all. Failure to make or maintain these arrangements or a delay or failure in a collaborative partner's performance under any such arrangements could have a material adverse effect on our business and financial condition.

We face and will face substantial competition.

We face and will face substantial competition from a variety of companies in the biodegradable, renewable resource-based plastic segment, as well as from companies in the conventional, non-biodegradable petroleum-based industry segment. Some of their products are suitable for use in a range of products at a price which may be lower than our premium priced product offerings. Many of these companies have longer operating histories, greater name recognition, larger customer bases and significantly greater financial, sales and marketing, manufacturing, distribution, technical and other resources than Metabolix. Our competitors may be able to adapt more quickly to new or emerging technologies and changes in customer requirements. In addition, current and potential competitors have established or may establish financial or strategic relationships among themselves or with existing or potential customers or other third parties. Accordingly, new competitors or alliances among competitors could emerge and rapidly acquire significant market share. We cannot assure you that we will be able to compete successfully against current or new competitors.

Changes in government regulations may have an adverse effect on demand for our products.

One of the key markets for our biopolymer products is as compostable and biodegradable substitutes for non-biodegradable petroleum-based plastics. This market is driven in part by laws, regulations and policies designed to encourage or mandate the increased use of biodegradable alternatives to petroleum-based plastics. In addition, we are in the early stage of developing plant crops for co-producing renewable chemicals together with biofuels. The market for biofuels is heavily influenced by governmental laws, regulations and policies mandating or providing incentives for fuel alternatives. There are numerous companies and trade associations that aggressively oppose these policies. The phasing out or elimination of these or similar laws and regulations may adversely affect the demand for the crop-based products we are developing and deter investment in the research and development in such products or biofuels, which would adversely affect our business.

Our products are made using genetically-engineered systems and may be, or may be perceived as being, harmful to human health or the environment.

Our PHA biopolymers have been produced by genetically-engineered microbes using sugar derived from genetically engineered corn as a feedstock. Our future products may be produced in genetically-engineered crops or through fermentation using genetically-engineered microbes. We may incur liability and/or legal expenses if there are claims that our genetically-engineered crops damage the environment or contaminate other farm crops. Some countries have adopted regulations prohibiting or limiting the production of genetically-engineered crops and the sale of products made using genetically engineered organisms. Such regulations could harm our business and impair our ability to produce biobased polymers in that manner.

The subject of genetic engineering of crops and other species has received negative publicity and has aroused public debate. Government authorities could, for social or other purposes, prohibit or

regulate the development and use of genetically-engineered organisms or products made from such organisms. Social concerns could adversely affect acceptance of our products.

Our success will be influenced by the price of petroleum relative to the price of biobased feedstocks.

Our success will be influenced by the cost of our products relative to petroleum-based plastics and chemicals. The cost of petroleum-based plastic is in part based on the price of petroleum. To date, our PHA biopolymers have been primarily manufactured using corn sugar, an agricultural feedstock. If the price of plant sugar feedstocks were to increase and/or if the price of petroleum decreases, our biobased products may be less competitive relative to petroleum-based plastics and chemicals may not be competitive. A material decrease in the cost of conventional petroleum-based plastics and chemicals may require a reduction in the prices of our products for them to remain attractive in the marketplace or reduce the size of our addressable market.

We face risks associated with our international business activities.

Our biopolymer materials may be obtained from supply sources outside the U.S. and we expect that a substantial portion of our biopolymer sales will be to customers in Europe. Such international business operations are subject to a variety of risks associated with conducting business internationally, including:

- economic or political instability in foreign countries, which could impact our customers and suppliers, reducing customer product orders, increasing bad debts, and potentially causing delays or stoppages in production;
- fluctuations in foreign exchange rates;
- pricing of raw materials in foreign countries relative to the costs of such materials in the U.S.;
- compliance with U.S. and foreign import and export control regulations and policies;
- compliance with foreign permitting, registration and regulatory requirements with respect to manufacturing and importation of our products and raw materials;
- the imposition of taxes, tariffs, quotas, trade barriers and restrictive trade policies;
- the possibility of inconsistent laws or regulations; and
- uncertainties relating to foreign laws and the enforcement of remedies in foreign jurisdictions.

If we lose key personnel or are unable to attract and retain necessary talent, we may be unable to develop or commercialize our products under development.

We are highly dependent on our key technical and scientific personnel, who possess unique information related to our research and technology. If we were to lose the services of these individuals, we may be unable to readily find suitable replacements with comparable knowledge and experience necessary to further our research, development and commercial programs. Our success depends largely upon the continued service of our management and scientific staff and our ability to attract, retain and motivate highly skilled technical, scientific, management, and marketing and sales personnel. Because of the unique talents and experience of many of our scientific, engineering and technical staff, competition for our personnel is intense. The loss of key personnel or our inability to hire and retain personnel who have the required expertise and skills could have a material adverse effect on our research and development efforts and our business.

We are subject to significant foreign and domestic government regulations, and compliance or failure to comply with these regulations could harm our business.

The manufacture, use, sale and marketing of PHA biopolymers is subject to government regulations in the U.S. and other countries, including requirements for government approval of food contact applications, hazardous materials regulations, and environmental, health and safety laws. Plant research is heavily regulated and our plant-crop and biobased chemical products will also be subject to government regulation in our target markets. The failure to comply with governmental regulations or to obtain government approval for our products could have a material adverse effect on our results of operations and financial condition. Governmental regulation or negative publicity could delay, reduce or eliminate market demand for our products which could have a material adverse effect on our results of operations and financial condition.

We may not have adequate insurance and may have substantial exposure to payment of product liability claims.

The testing, manufacture, marketing, and sale of our products may involve product liability risks. Although we currently have product liability insurance covering claims up to $4 million per occurrence and in the aggregate, we may not be able to maintain this product liability insurance at an acceptable cost, if at all. In addition, this insurance may not provide adequate coverage against potential losses. If claims or losses exceed our liability insurance coverage, it could have a material adverse effect on our business and our financial condition.

Risks Relating to Intellectual Property

Intellectual property protection for our products is important and uncertain.

Our commercial success will depend in part on our obtaining and maintaining patent, trade secret and trademark protection of our technologies in the United States and other jurisdictions, as well as successfully enforcing this intellectual property and defending this intellectual property against third-party challenges. In particular, we place considerable emphasis on obtaining patent protection for significant new technologies, products and processes in the United States and in foreign jurisdictions where we plan to use such technologies.

Our patent position involves complex legal and factual questions. Accordingly, we cannot predict the breadth of claims that may be allowed or enforced in our patents or in third-party patents. Patents may not be issued for any pending or future pending patent applications owned by or licensed to us, and claims allowed under any issued patent or future issued patent owned or licensed by us may not be valid or sufficiently broad to protect our technologies. Moreover, we may be unable to protect certain of our intellectual property in the United States or in foreign countries, and there will be many countries in which we will choose not to file or maintain patents because of the costs involved. Foreign jurisdictions may not afford the same protections as U.S. law, and we cannot ensure that foreign patent applications will have the same scope as the U.S. patents. Additionally, any issued patents owned by or licensed to us now or in the future may be challenged, invalidated, or circumvented. Our issued patents have expiration dates ranging from 2014 through 2032. Competitors may also design around our technology or develop competing technologies.

We could incur substantial costs to bring suits or other proceedings in which we may assert our patent rights against others or defend ourselves in suits brought against us. An unfavorable outcome of any such litigation could have a material adverse effect on our business and results of operations.

If we are not able to defend the patent or trade secret protection position of our technologies, then we will not be able to exclude competitors from developing or marketing competing technologies,

and we may not generate enough revenues from product sales to justify the cost of development of our technologies and to achieve or maintain profitability.

We also rely on trademarks to establish a market identity for our products. We may not obtain registrations for our pending or future trademark applications, and there will be many countries in which we will choose not to file trademark registration applications because of the costs of filing and prosecuting such applications. Enforcing or defending our registered and unregistered trademarks might result in significant litigation costs and damages, including the inability to continue using certain trademarks. In the event that we are unable to continue using certain trademarks, we may be forced to rebrand our products, which could result in the loss of brand recognition, and could require us to devote resources to advertise and market brands.

Third parties may claim that we infringe their intellectual property, and we could suffer significant litigation or licensing expense as a result.

Various U.S. and foreign issued patents and pending patent applications owned by third parties exist in areas relevant to our products and processes. Such third parties may claim that we infringe their patents. For example, we are aware of competitors with patents relating to biobased plastics. Such competitors may allege that we infringe these patents. There could also be existing patents of which we are not aware that our technologies may inadvertently infringe. In addition, because patent applications are maintained in secrecy for a period of time after they are filed, there may be currently pending applications, unknown to us, which may later result in issued patents that our technologies may infringe. If third parties assert claims against us alleging that we infringe their patents or other intellectual property rights, we could incur substantial costs and diversion of management resources in defending these claims, and the defense of these claims could have a material adverse effect on our business. In addition, if third parties assert claims against us and we are unsuccessful in defending against these claims, these third parties may be awarded substantial damages, as well as injunctive or other equitable relief against us, which could effectively block our ability to make, use, sell, distribute, or market our products and services in the United States or abroad. We cannot currently predict whether a third party will assert a claim against us, or pursue infringement litigation against us; nor can we predict the ultimate outcome of any such potential claims or litigation.

In the event that a claim relating to intellectual property is asserted against us, or third parties not affiliated with us hold pending or issued patents that relate to our products or technology, we may seek licenses to such intellectual property or challenge those patents. However, we may be unable to obtain these licenses on acceptable terms, if at all, and our challenge of the patents may be unsuccessful. Our failure to obtain the necessary licenses or other rights could prevent the sale, manufacture, or distribution of some of our products and, therefore, could have a material adverse effect on our business.

We rely in part on trade secrets to protect our technology, and our failure to obtain or maintain trade secret protection could limit our ability to compete.

We rely on trade secrets to protect some of our technology and proprietary information, especially where we believe patent protection is not appropriate or obtainable. However, trade secrets are difficult to protect. We vigorously pursue confidentiality agreements and contractual provisions with our collaborators, potential customers, employees, and consultants to protect our trade secrets and proprietary know-how. These agreements may be breached and we may not have adequate remedies for such breach. While we use reasonable efforts to protect our trade secrets, our employees, consultants, contractors or scientific and other advisors, our potential customers, or our strategic partners may unintentionally or willfully disclose our proprietary information to competitors. If we were to enforce a claim that a third party had illegally obtained and was using our trade secrets, our enforcement efforts would be expensive and time consuming, and the outcome would be unpredictable. In addition, courts

outside the United States are sometimes unwilling to protect trade secrets. Moreover, if our competitors independently develop equivalent knowledge, methods and know-how, it will be more difficult for us to enforce our rights and our business could be harmed.

Risks Relating to Owning our Common Stock

Raising additional funds may cause dilution to our existing stockholders, restrict our operations or require us to relinquish rights to our technologies.

If we raise additional funds through equity offerings or offerings of equity-linked securities, including warrants or convertible debt securities, we expect that our existing stockholders will experience significant dilution, and the terms of such securities may include liquidation or other preferences that adversely affect your rights as a stockholder. Debt financing, if available, may subject us to restrictive covenants that could limit our flexibility in conducting future business activities, including covenants limiting or restricting our ability to incur additional debt or make capital expenditures. If we raise additional funds through strategic partnerships or licensing agreements with third parties, we may have to relinquish valuable rights to our technologies or grant licenses on terms that are not favorable to us.

An active trading market for our common stock may not be available on a consistent basis to provide stockholders with adequate liquidity. Our stock price may be extremely volatile, and our stockholders could lose a significant part of their investment.

An active trading market for shares of our common stock may not be sustained on a consistent basis. The public trading price for our common stock will be affected by a number of factors, including:

- reported progress of our business and technology development, relative to investor expectations;
- changes in earnings estimates, investors' perceptions, recommendations by securities analysts or our failure to achieve analysts' earnings estimates;
- quarterly variations in our or our competitors' results of operations;
- general market conditions and other factors unrelated to our operating performance or the operating performance of our competitors;
- future sales of our common stock;
- future issuance and/or sale of preferred stock;
- announcements by us, or our competitors, of acquisitions, new products, significant contracts, commercial relationships or capital commitments;
- commencement of, or involvement in, litigation;
- any major change in our board of directors or management;
- changes in governmental regulations or in the status of our regulatory approvals;
- announcements related to patents issued to us or our competitors and to litigation involving our intellectual property;
- a lack of, limited, or negative industry or security analyst coverage;
- developments in our industry and general economic conditions; and
- other factors described elsewhere in these "Risk Factors."

As a result of these factors, our stockholders may not be able to resell their shares at, or above, their purchase price. In addition, the stock prices of many technology companies have experienced wide

fluctuations that have often been unrelated to the operating performance of those companies. The valuations of many biotechnology companies without consistent product revenues and earnings are extraordinarily high based on conventional valuation standards, such as price to earnings and price to sales ratios. These trading prices and valuations may not be sustained. Any negative change in the public's perception of the prospects of industrial biotechnology or "clean technology" companies could depress our stock price regardless of our results of operations. These factors may have a material adverse effect on the market price of our common stock.

Our financial results may vary significantly from period to period which may reduce our stock price.

Our financial results may fluctuate as a result of a number of factors, many of which are outside of our control, which may cause the market price of our common stock to fall. For these reasons, comparing our operating results on a period to period basis may not be meaningful, and you should not rely on our past results as an indication of our future performance. Our financial results may be negatively affected by any of the risk factors listed in this "Risk Factors" section and, in particular, the following risks:

- failure to produce commercialized products or to find customers for these products;
- the unpredictability of government funding for some of our programs;
- failure to estimate or control costs;
- difficulties in collecting payments due from customers or licensees;
- adverse judgments or settlements in legal disputes; and
- other one-time financial charges.

Provisions in our certificate of incorporation and by-laws and Delaware law and our shareholder rights plan might discourage, delay or prevent a change of control of our company or changes in our management and, therefore, depress the trading price of our common stock.

Provisions of our certificate of incorporation and by-laws and Delaware law may discourage, delay or prevent a merger, acquisition or other change in control that stockholders may consider favorable, including transactions in which our stockholders might otherwise receive a premium for their shares of our common stock. These provisions may also prevent or frustrate attempts by our stockholders to replace or remove our management.

We have adopted a shareholder rights plan, the purpose of which is, among other things, to enhance our Board's ability to protect shareholder interests and to ensure that shareholders receive fair treatment in the event any coercive takeover attempt of the Company is made in the future. The adoption of the plan was intended, in part, to address the risk that a third party could acquire our Company at a price that does not reflect the full value of our business and our technologies. The shareholder rights plan could make it more difficult for a third party to acquire, or could discourage a third party from acquiring, our Company or a large block of our Company's common stock.

In addition, Section 203 of the Delaware General Corporation Law prohibits a publicly-held Delaware corporation from engaging in a business combination with an interested stockholder, generally a person which together with its affiliates owns, or within the last three years has owned, 15% of our voting stock, for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is approved in a prescribed manner.

The existence of the foregoing provisions and anti-takeover measures could limit the price that investors might be willing to pay in the future for shares of our common stock. They could also deter

potential acquirers of our Company, thereby reducing the likelihood that our stockholders could receive a premium for their common stock in an acquisition.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

We do not own any real property. We currently lease approximately 28,000 square feet of office and research and development space at 21 Erie Street, Cambridge, Massachusetts. Our lease for this facility expires in May 2020 unless either we, or the landlord, exercises a one-time option to terminate the lease early effective May 2017, with appropriate advance notice. We also lease approximately 13,700 square feet of office and laboratory space at 650 Suffolk Street, Lowell, Massachusetts where the majority of our general and administrative employees are located. Our lease for this facility expires in May 2020, with the option to renew for one five-year period. Our wholly-owned subsidiary, Metabolix GmbH ("GmbH"), leases approximately 2,500 square feet of office space in Cologne, Germany. The lease term for this facility is open-ended but may be terminated by the landlord or GmbH with six months advance notice. Our wholly-owned subsidiary, Metabolix Oilseeds, Inc. ("MOI"), located in Saskatoon, Saskatchewan, Canada, leases approximately 2,000 square feet of office, laboratory and greenhouse space. MOI's leases for these facilities expire in August 2014.

ITEM 3. LEGAL PROCEEDINGS

On March 7, 2012, a purported derivative lawsuit, Childs v. Kouba et al., Civil Action 12-0892 (the "Derivative Action"), was filed in Massachusetts Superior Court for Middlesex County, on behalf of the Company against members of the Company's Board of Directors for alleged breaches of their fiduciary duties. The parties transferred the case to the Business Litigation Session of Massachusetts Superior Court for Suffolk County, where it is now pending under Civil Action No. 13-4406-BLS2. The Derivative Action seeks compensatory damages in an unspecified amount, plaintiff's costs and attorneys' fees, and unspecified equitable or injunctive relief, based on a nearly identical set of alleged facts to those that were asserted in a purported shareholder class action, Hilary Coyne v. Metabolix, Inc., Richard P. Eno, and Joseph Hill, Civil Action 1:12-cv-10318 (the "Class Action"). On September 20, 2013, the United States District Court for the District of Massachusetts dismissed the Class Action in full and with prejudice. Defendants currently expect to file their motion to dismiss the Derivative Action on April 21, 2014.

The Company is currently unable to assess the probability of loss or estimate a range of potential loss, if any, associated with the Derivative Action because it is at an early stage.

From time to time, the Company may be subject to other legal proceedings and claims in the ordinary course of business. The Company is not currently aware of any such other proceedings or claims that it believes will have, individually or in the aggregate, a material adverse effect on the business, financial condition or the results of operations.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Market Information

Our common stock is traded on the NASDAQ Global Market under the symbol "MBLX." The following table sets forth, for the period indicated, the high and low sales prices for our common stock, as reported by the NASDAQ Global Market, for our two most recent fiscal years:

	Common Stock Price			
	2013		2012	
	High	Low	High	Low
First Quarter	$ 2.58	$ 1.31	$ 6.10	$ 2.34
Second Quarter	2.33	1.35	3.20	1.80
Third Quarter	1.70	1.20	2.32	1.32
Fourth Quarter	1.94	0.75	2.19	1.07

The close price of our common stock, as reported by the NASDAQ Global Market, was $1.42 on March 24, 2014.

Stockholders

As of March 22, 2014, there were 34,365,227 shares of our common stock outstanding held by 54 stockholders of record.

Dividends

We have never declared or paid any cash dividends on our capital stock and do not expect to pay any cash dividends for the foreseeable future. We intend to use future earnings, if any, in the operation and expansion of our business. Any future determination relating to our dividend policy will be made at the discretion of our board of directors, based on our financial condition, results of operations, contractual restrictions, capital requirements, business properties, restrictions imposed by applicable law and other factors our board of directors may deem relevant.

Equity Compensation Plan Information

Please see Part III, Item 12, for information regarding securities authorized for issuance under our equity compensation plans.

Unregistered Sales of Securities

On October 4, 2013, the Company issued 64,687 shares of common stock to participants in its Metabolix, Inc. 401(k) Plan as a matching contribution. The issuance of these securities is exempt from registration pursuant to Section 3(a)(2) of the Securities Act of 1933 as excluded securities.

On December 19, 2013, the Company's Board of Directors granted the following awards to Joseph Shaulson in connection with his agreement to serve as a member of the Company's Board of Directors on that date and as an inducement for him to accept employment with the Company as its President and Chief Executive Officer starting in January 2014: (i) a nonqualified stock option to purchase 1,150,000 shares of the Company's common stock with an exercise price equal to $1.33 per share; (ii) restricted stock units that represent a contingent right to receive up to 600,000 shares of the Company's common stock upon the achievement of certain stock price and revenue based targets as set forth in Mr. Shaulson's employment agreement; and (iii) the right to purchase 250,000 shares of the Company's common stock within 30 days after commencement of Mr. Shaulson's employment with the Company at a price equal to $1.20 per share. On January 28, 2014, Mr. Shaulson exercised his right to purchase the 250,000 shares of common stock at an aggregate exercise price of $300,000. We deem

these sales and issuances of securities and these grants and exercises of stock options as exempt from registration pursuant to Section 4(a)(2) of the Securities Act of 1933, as amended.

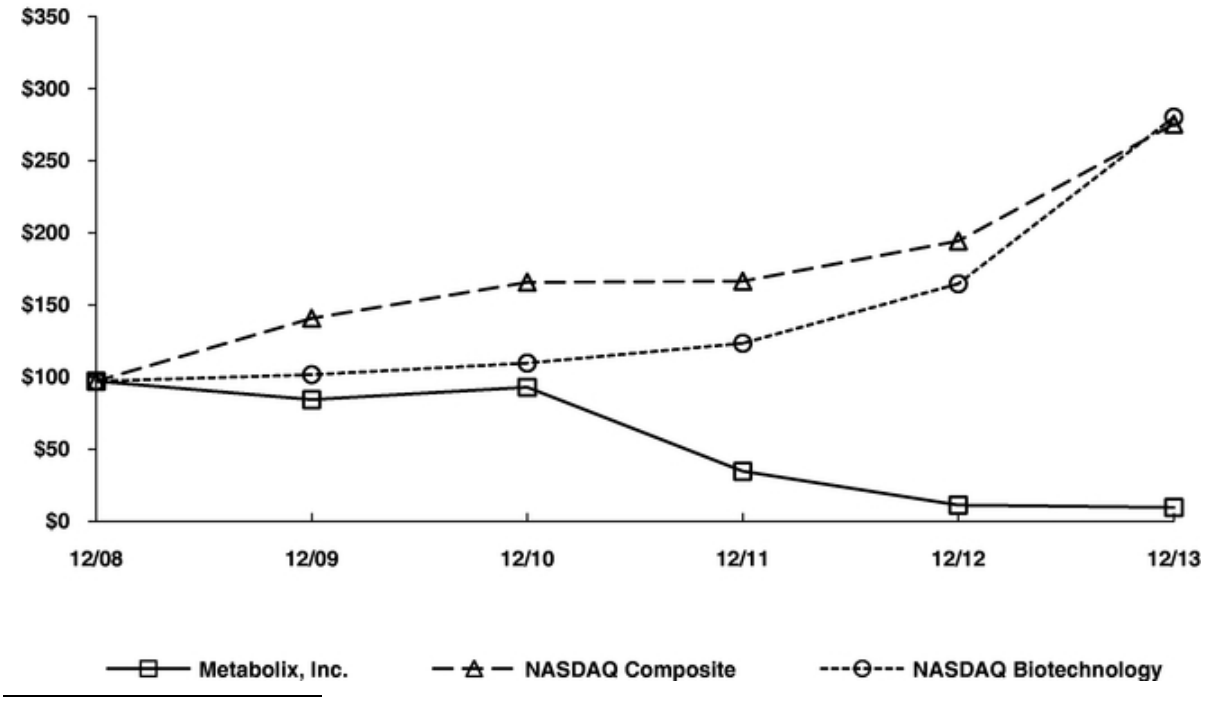
Issuer Purchases of Equity Securities

During the quarter ended December 31, 2013, there were no repurchases made by us or on our behalf, or by any "affiliated purchasers," of shares of our common stock.

Stock Performance Graph

This graph compares the percentage change in cumulative total stockholder return (change in stock price plus reinvested dividends) on our common stock with the cumulative total return for the NASDAQ Composite Index and the NASDAQ Biotechnology index for the periods set below. This graph assumes a $100 investment in our common stock at a closing price of $12.72 per share on December 31, 2008. The comparisons in the graph are not intended to forecast or be indicative of possible future performance of our common stock.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN*
Among Metabolix, Inc., the NASDAQ Composite Index, and the NASDAQ Biotechnology Index



* $100 invested on 12/31/08 in stock or index, including reinvestment of dividends.
Fiscal year ending December 31.

	Year ended December 31,					
	2008	2009	2010	2011	2012	2013
Metabolix, Inc.	$ 100.00	$ 86.87	$ 95.68	$ 35.77	$ 11.64	$ 9.91
NASDAQ Composite	100.00	144.84	170.58	171.34	200.03	283.43
NASDAQ Biotechnology	100.00	104.67	112.89	127.04	169.50	288.38

ITEM 6. SELECTED CONSOLIDATED FINANCIAL DATA

The selected consolidated statement of operations data for the years ended December 31, 2013, 2012, and 2011 and balance sheet data as of December 31, 2013 and 2012 have been derived from our consolidated financial statements and related notes, which are included elsewhere in this report, and have been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as indicated in their report. The selected consolidated statement of operations data for the years ended December 31, 2010 and 2009 and the balance sheet data as of December 31, 2011, 2010 and 2009 have been derived from our audited financial statements that are not included in this report. The selected financial data set forth below should be read in conjunction with our financial statements, the related notes and "Management's Discussion and Analysis of Financial Condition and Results of Operations" included elsewhere in this report. The historical results are not necessarily indicative of the results to be expected for any future period.

	Year ended December 31,				
	2013	2012	2011	2010	2009
	(In thousands, except share and per share data)				
Statement of operations data:					
Total revenue	$ 5,394	$ 42,316(1)	$ 1,425	$ 448	$ 1,425
Costs and expenses:					
Cost of product revenue	3,026	1,426	—	—	—
Research and development expenses	19,127	23,177	24,445	23,673	24,471
Selling, general and administrative expenses	13,743	14,110	15,841	15,714	15,683
Total costs and expenses	35,896	38,713	40,286	39,387	40,154
Income (loss) from operations	(30,502)	3,603	(38,861)	(38,939)	(38,729)
Other income, net	(4)	27	76	136	772
Net income (loss)	$ (30,506)	$ 3,630	$ (38,785)	$ (38,803)	$ (37,957)
Net income (loss) per share, basic	$ (0.88)	$ 0.11	$ (1.24)	$ (1.45)	$ (1.62)
Net income (loss) per share, diluted	$ (0.88)	$ 0.11	$ (1.24)	$ (1.45)	$ (1.62)
Number of shares used in per share calculations, basic	34,471,301	34,217,298	31,257,376	26,773,755	23,435,264
Number of shares used in per share calculations, diluted	34,471,301	34,279,779	31,257,376	26,773,755	23,435,264

(1) In 2012, we recognized $38.9 million of deferred revenue associated with the termination of our commercial alliance with Archer Daniels Midland Company.

	Year ended December 31,				
	2013	2012	2011	2010	2009
			(In thousands)		
Balance Sheet Information:					
Cash, cash equivalents and short-term investments	$ 19,209	$ 43,773	$ 76,855	$ 61,574	$ 92,202
Total assets	26,738	53,510	82,912	66,771	97,554
Long-term deferred revenue	—	—	35,944	36,207	37,299
Other long-term obligations	145	186	340	493	649
Total liabilities	6,340	6,170	43,449	43,095	42,510
Accumulated deficit	(272,538)	(242,032)	(245,662)	(206,877)	(168,074)
Total stockholders' equity	20,398	47,340	39,463	23,676	55,044

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis should be read in conjunction with the Consolidated Financial Statements and Notes thereto included in this Annual Report on Form 10-K.

All dollar amounts are stated in thousands.

Overview

Metabolix is an innovation-driven bioscience company focused on delivering sustainable solutions to the plastics and chemicals industries. We have core capabilities in microbial genetics, fermentation process engineering, chemical engineering, polymer science, plant genetics and botanical science, and we have assembled these capabilities in a way that has allowed us to integrate our biotechnology research with real world chemical engineering and industrial practice. In addition, we have created an extensive intellectual property portfolio to protect our innovations and, together with our technology, to serve as a valuable foundation for future industry collaborations.

Our targeted markets of plastics and chemicals offer substantial opportunity for innovation and value creation. Our strategy is based on the performance and differentiation of our materials. With proprietary biopolymer formulations we aim to address unmet needs of our customers and leverage the distinctive properties of our PHAs to improve critical product qualities and enable our customers to enhance the value of their products and/or achieve savings through their value chain. As such, we are positioning our biopolymers as advanced specialty materials that offer a broad and attractive range of properties and processing options compared to other bioplastics or performance additives. In addition, we are also leveraging our technology to utilize renewable feedstocks to produce biobased industrial chemicals for high value applications as alternatives to the primary synthetic routes currently deployed by the chemical industry. We believe that a substantial global market opportunity exists to develop and commercialize our technology to produce advanced biopolymer and biobased industrial chemical products.

Metabolix was formed to leverage the ability of natural systems to produce complex biopolymers from renewable resources. We have focused on a family of biopolymers found in nature called polyhydroxyalkanoates ("PHAs"), which occur naturally in living organisms and are chemically similar to polyesters. We have demonstrated the production of PHAs at industrial scale to produce PHA biopolymers and PHA precursors to biobased industrial chemicals. We have also demonstrated the production of polyhydroxybutyrate ("PHB"), a subclass of PHAs, in agriculturally significant non-food crops.

PHA Biopolymers Platform

From 2004 through 2011, we developed and began commercialization of our PHA biopolymers through a technology alliance and subsequent commercial alliance with a wholly-owned subsidiary of Archer Daniels Midland Company ("ADM"), one of the largest agricultural processors in the world. Under the commercial alliance, ADM was responsible for resin manufacturing, and Metabolix was primarily responsible for product development, compounding, marketing and sales. Through this alliance, the companies established a joint venture company, Telles, LLC ("Telles"), to commercialize PHA biopolymer products.

After ADM terminated the Telles joint venture early in 2012, we retained significant rights and assets associated with the PHA biopolymers business, which we used to relaunch the business with a new business model and a restructured biopolymers team that retained core capabilities in technology, manufacturing and marketing. We hold exclusive rights to the Metabolix technology and intellectual property used in the joint venture. We acquired all of Telles's product inventory and compounding raw materials, all product certifications and all product trademarks including Mirel™ and Mvera™, and we retained all co-funded pilot plant equipment in locations outside of the ADM commercial manufacturing facility in Clinton, Iowa. Today, we are focused on high value performance biopolymers and are in the process of identifying and securing the manufacturing capability needed to commercialize these products.

During 2012, we took key steps toward implementing the new business model for our PHA biopolymers business. We worked closely with our core customers to supply product from existing inventory as a bridge to new supply. We evaluated the potential applications for our biopolymer products and narrowed our market development focus to certain high value market segments: (i) performance additives, including film and bag applications; and (ii) functional biodegradation. In March 2012, we began directly recording product sales and shipping product from inventory to our customers. During the second half of 2012, we developed, sampled and launched a compostable film grade resin, and a polymeric modifier for polyvinyl chloride ("PVC"). We also established Metabolix GmbH, a subsidiary located in Cologne, Germany, to serve as a focal point for our commercial activities in Europe. This location is intended to enable us to directly access the European market, which is the largest for bioplastics.

During 2013, we continued to use existing biopolymer inventory as well as biobased and biodegradable polymers sourced from third parties to continue developing the market and to supply new and existing customers. In the second half of 2013, we broadened our offering of film resins with the launch of Mvera B5010, a certified compostable resin for film and bag applications, and the launch of Mvera B5011, a certified compostable film resin for film and bag applications requiring transparency. We also launched I6003rp, a new polymeric modifier and processing aid for recycled PVC. Throughout 2013, we worked closely with customers developing applications using our materials.

During 2013 we also engaged in discussions and collaborations with potential customers and suppliers in Asia to expand our relationships there. In July 2013, we formalized a Memorandum of Understanding ("MOU") with Samsung Fine Chemicals, a company based in South Korea with complementary biopolymer products and complementary regional positioning to Metabolix. Under the MOU, we each fund our respective costs separately, but work together with the goal of expanding the global market for biodegradable polymers. Our MOU with Samsung also provides access to additional biodegradable polymers that we can use in resin formulations designed to deliver the best performance and value to targeted customer applications. The MOU is not a binding commitment and may be terminated at any time by either party without liability or obligations to the other party.

In 2014, we plan to increase our efforts in the areas of performance additives based on PHAs. We also expect to build on the performance, biodegradability and biobased content attributes of our PHA

biopolymers as we continue to develop biobased and biodegradable resins for film and bag applications and for functional biodegradation applications based on PHAs and other biodegradable materials.

We will also continue to explore alternative options for biopolymer manufacturing with a supply chain properly sized to our business. In 2013, we conducted due diligence on several potential manufacturing sites, and we expect to select a site in 2014. Once our PHA supply chain is fully established, this captive capacity combined with access to additional biobased and biodegradable materials sourced from third parties, will allow us to continue formulating proprietary high-performance solutions for our target segments. However, our present capital resources are not sufficient to fund our planned operations for a twelve month period. We will, during 2014, require significant additional funding to continue our operations. Based on our current plans and projections, which remain subject to numerous uncertainties, we anticipate raising $50-60 million over the next 12-15 months. The timing, structure and vehicles for obtaining this financing are under consideration and it may be accomplished in stages. Although we cannot guarantee the availability of financing, our goal is to use this capital to build an intermediate scale specialty materials business based on PHA additives that serves as the foundation for our longer-range plans and the future growth of our business. Failure to receive additional funding will force us to delay, scale back or otherwise modify our business and manufacturing plans, sales and marketing efforts, research and development activities and other operations, and/or seek strategic alternatives.

Biobased Industrial Chemicals Platform.

For our second platform, we are developing C4 and C3 chemicals from biobased sources, as opposed to the fossil fuels that are used to produce most industrial chemicals today. Our process for creating biobased industrial C4 and C3 chemicals involves engineering metabolic pathways into microbes that, in a fermentation process, produce specific PHA structures that serve as precursors for these chemicals. Through our PHA technology, we are able to control the microbe biology to achieve high concentrations of specific PHAs that accumulate inside cells as they metabolize sugars. This intracellular accumulation of the biopolymers inside the microbes is a unique and differentiating aspect of our technology. When the fermentation is completed, we use a novel internally developed recovery process known as "FAST" (fast-acting, selective thermolysis) that converts the biopolymer directly to the target chemical using heat.

In the C4 program, we have produced biobased gamma butyrolactone ("GBL") at pilot scale and demonstrated a chemical profile that meets or exceeds the existing industrial specifications. In 2012, we completed the preliminary design for a commercial scale plant to enable production of biobased GBL which, through an established conversion process, the biobased GBL can be further converted to biobased butanediol ("BDO"). This plan, which could be implemented under a potential future collaboration, includes specifications for all of the components of our fermentation and recovery process.

We believe that developing and commercializing biobased C3 chemicals could represent another attractive application of our technology. In 2012, after completing an analysis of the global market for acrylic acid, a C3 chemical, we continued scale up of fermentation and optimization of microbial strains to produce biobased C3 chemicals. We also successfully demonstrated recovery of acrylic acid from dried biomass using the "FAST" process in our Cambridge laboratory and provided sample quantities of dried biomass for conversion to biobased acrylic acid for customer evaluation. While significant work remains to be done, particularly around scale-up of the "FAST" process for commercial quantities of biobased acrylic acid, this is another opportunity that could be pursued under a potential future collaboration.

In 2013, we achieved three technical milestones in our biobased chemicals program. We demonstrated a process to efficiently recover ultra-high purity GBL from fermentation broth and

showed that our C4 technology can be adapted to produce deuterated bio-GBL. We also demonstrated that our C3 and C4 microbial strains and fermentation processes are suitable for production of biobased chemicals based on second generation feedstocks, or cellulosic sugars.

While we believe that strategic alliances will be required to successfully commercialize C3 and C4 chemicals, there can be no assurance that we will be successful in establishing or maintaining suitable partnerships. We plan to continue seeking such alliances in 2014, with the goal to secure funding from potential partners to continue development of our biobased industrial chemical processes.

Crops Platform.

In our third technology platform, we are harnessing the renewable nature of plants to make renewable chemicals and bioenergy from crops. The focal point of our crop technology efforts is around PHB, the simplest member of the broad PHA family of biopolymers. While applications for PHAs have focused mainly on their use as biodegradable bioplastics, these polymers have a number of other unique features that will allow their use in other applications, such as the production of chemical intermediates and their use as value-added animal feeds. We are working to create proprietary systems to produce PHB in high concentration in the leaves of biomass crops or in the seeds of oilseed crops for these multiple applications. In doing this, we have been developing tools and intellectual property around enhancing the photosynthetic capacity of plants, a core capability for improved crop yield.

Our work in crops highlights our leading edge technical capabilities, and researchers at Metabolix have designed novel, multi-gene expression systems to increase production of PHB in plant tissue. The science behind this shift in metabolism is complex since the goal is to significantly increase production of PHB to be viable at industrial scale without impairing the ability of the plant to thrive in its natural environment. In 2011, Metabolix was awarded a $6 million grant by the U.S. Department of Energy ("DOE") to engineer switchgrass to produce 10 percent PHB, by weight, in the whole plant and to develop methods to thermally convert the PHB-containing biomass to crotonic acid and a higher density residual biomass fraction for production of bioenergy. During 2012 and 2013, Metabolix was awarded additional grants for leading-edge crop research targeting multi-gene expression and transformation of plants including important biofuel and food crops. Funding from these additional grants is expected to total approximately $1.6 million and will run through 2014.

In 2014, we plan to continue to identify additional sources of grant funding while we advance research under our existing grants, focused primarily on increasing PHB production in switchgrass and developing a thermal conversion process to recover crotonic acid. We may also seek to establish alliances with industry partners to commercially exploit this platform and the intellectual property we have gained in our work in this area. However, there can be no assurance that we will be successful in establishing or maintaining suitable partnerships.

We have incurred significant losses since our inception. As of December 31, 2013, our accumulated deficit from inception to date was $272,538 and total stockholders' equity was $20,398. We recognized a net loss of $30,506 in 2013, net income of $3,630 in 2012, and a net loss of $38,785 in 2011.

Collaborative Arrangements

We are not currently participating in any collaborative arrangements. Our historical strategy for collaborative arrangements has been to retain substantial participation in the future economic value of our technology while receiving current cash payments to offset research and development costs and working capital needs. By their nature, our collaborative agreements have been complex, containing multiple elements covering a variety of present and future activities.

ADM Collaboration

From 2004 through 2011, we developed and began commercialization of our PHA biopolymers through a technology alliance and subsequent commercial alliance with ADM Polymer Corporation, a wholly-owned subsidiary of ADM, one of the largest agricultural processors in the world. The Commercial Alliance Agreement between Metabolix and ADM Polymer specified the terms and structure of the alliance. The agreement governed the activities and obligations of the parties to commercialize PHA biopolymers, which have been marketed under the brand names Mirel™ and Mvera™. These activities included the establishment of a joint venture company, Telles, LLC ("Telles"), to market and sell PHA biopolymers, the construction of a manufacturing facility capable of producing 110 million pounds of material annually (the "Commercial Manufacturing Facility"), the licensing of technology to Telles and to ADM, and the conducting of various research, development, manufacturing, sales and marketing, compounding and administrative services by the parties.

Telles was formed to: (i) serve as the commercial entity to establish and develop the commercial market for PHA biopolymers, and conduct the marketing and sales in accordance with the goals of the commercial alliance, (ii) assist in the coordination and integration of the manufacturing, compounding and marketing activities, and (iii) administer and account for financial matters on behalf of the parties. Metabolix and ADM each had a 50 percent ownership and voting interest in Telles.

Under the Commercial Alliance Agreement ADM was permitted, under limited circumstances, to terminate the alliance if a change in circumstances that was not reasonably within the control of ADM made the anticipated financial return from the project inadequate or too uncertain. The agreement provided that, upon termination by ADM due to a change in circumstances, Metabolix would be permitted to continue to produce and sell PHA biopolymers, and ADM would be required to perform manufacturing services for the Company for a period of time following the termination (subject to certain payment obligations to ADM). On January 9, 2012, ADM notified us that it was terminating the commercial alliance effective February 8, 2012. ADM had undertaken a strategic review of its business investments and activities and made the decision to focus resources outside of Telles. As the basis for the decision, ADM indicated to us that the projected financial returns from the alliance were too uncertain.

The Commercial Alliance Agreement with ADM limited the rights of both ADM and Metabolix to work with other parties or alone in developing or commercializing certain PHAs produced through fermentation. These exclusivity obligations ended upon termination of the alliance. Also, upon termination of the alliance, Metabolix intellectual property licenses to ADM Polymer and Telles ended, with Metabolix retaining all rights to its intellectual property. ADM retained its Commercial Manufacturing Facility located in Clinton, Iowa, previously used to produce PHA biopolymers for Telles.

Under the Technology Alliance and Option Agreement and Commercial Alliance Agreement, various payments were made to Metabolix by ADM as shown in the table below. All of these payments were recorded as deferred revenue on the Company's balance sheet and were expected to be recognized on a straight line basis over a period of approximately ten years in which Metabolix would fulfill its contractual obligations during the Commercial Phase of the Commercial Alliance Agreement.

Upfront payment	$ 3,000
Milestone payments	2,000
Support payments	22,050
Cost sharing payments for pre-commercial manufacturing plant construction and operations	11,835
Total	$ 38,885

The Company had no further performance obligations in connection with the commercial alliance after its termination, and as a result, the entire $38,885 of deferred revenue was recognized by the Company during its fiscal quarter ended March 31, 2012.

After termination of the Commercial Alliance Agreement, the parties entered into a Settlement Agreement in which the parties agreed to specific terms related to the winding up and dissolution of Telles. Under this Settlement Agreement, we purchased certain assets of the joint venture for $2,982 including Telles's entire inventory, exclusive and perpetual rights to all of Telles's trademarks, and all product registrations, certifications and approvals for Telles's PHA biopolymers. Pursuant to the Settlement Agreement, ADM relinquished any claims with respect to certain co-funded equipment previously acquired by Metabolix and situated at locations other than the Clinton, Iowa Commercial Manufacturing Facility, and Metabolix and Telles waived any rights to post-termination manufacturing and fermentation services under the Commercial Alliance Agreement.

Pursuant to the Settlement Agreement, Telles paid to ADM an amount equal to the aggregate cash balances of Telles totaling $3,778 on the date of the Settlement Agreement, minus $100 retained by Telles to settle any remaining trade obligations. The remaining trade obligations of Telles at the date of execution of the Settlement Agreement did not exceed $100. In the event that ADM is required to repay to Telles or to pay to any creditor of Telles any amounts included in the $2,982 purchase price or the $3,678 distributed to ADM by Telles pursuant to the Settlement Agreement, Metabolix is obligated to reimburse ADM in an amount equal to 50% of such payments, provided that in no event would the amount to be so paid by Metabolix exceed the total of the $2,982 purchase price and the $3,678 Telles cash required to be so repaid or reimbursed by ADM. In February 2013, ADM notified us that Telles had been formally dissolved and that no third party creditor trade obligations had been paid. As a result, we believe that we are no longer contingently liable for any third party obligations stemming from our former ADM collaboration.

Government Grants

As of December 31, 2013, expected gross proceeds of $3,350 remain to be received under our U.S. and Canadian government grants, which include amounts for reimbursement to our subcontractors, as well as reimbursement for our employees' time and benefits, and other expenses related to performance under the grants.

The status of our United States and Canadian government grants is as follows:

Program Title	Funding Agency	Total Government Funds	Total received through December 31, 2013	Remaining amount available as of December 31, 2013	Contract/Grant Expiration
Renewable Enhanced Feedstocks For Advanced Biofuels And Bioproducts	Department of Energy	$ 6,000	$ 3,553	$ 2,447	September 2015
Subcontract from University of California (Los Angeles) project funded by ARPA-E entitled "Plants Engineered to Replace Oil: Energy Plant Design"	Department of Energy	566	362	204	September 2014
Capacity Building for Commercial-Scale PHB Camelina Development	National Research Council Canada	243	181	62	March 2014
Subcontract from University of Massachusetts (Amherst) project funded by ARPA-E entitled "Development of a Dedicated High Value Biofuels Crop"	Department of Energy	663	240	423	December 2014
Development of a Sustainable Value Added Fish Feed Using PHB Producing Camelina	National Research Council Canada	89	71	18	March 2014
Screening and Improvement of Polyhydroxybuyrate (PHB) Production Camelina Sativa Lines for Field Cultivation	Canadian Agricultural Adaptation Program (CAAP)	53	24	29	December 2013
Central Innovation Program for Medium-Sized Companies (ZIM)—Cooperation Project (KF)—Development of New PHB Blends for Innovative Applications	AiF Project GmbH	167	—	167	September 2015
Total		$ 7,781	$ 4,431	$ 3,350	

Critical Accounting Estimates and Judgments

Our consolidated financial statements are prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of these consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets,

liabilities, revenue, costs and expenses, and related disclosures. We evaluate our estimates and assumptions on an ongoing basis. Our actual results may differ from these estimates.

We believe that of our significant accounting policies, which are described in Note 2 to our consolidated financial statements, the accounting policies described below involve a greater degree of judgment and complexity. Accordingly, we believe that the accounting policies described below are the most critical to aid in fully understanding and evaluating our consolidated financial condition and results of operations.

Revenue Recognition

During March 2012, we initiated biopolymer product sales to customers for the first time. Our policy is to recognize revenue when evidence of an arrangement exists, title has passed or services have been rendered, the selling price is fixed or determinable and collectability is reasonably assured. Revenue from product sales to customers is recognized when all elements of the sale have been delivered. Our product return policy provides for our discretion in accepting customer product returns during a period of sixty days after product delivery. Until sufficient experience is developed on which to base an estimate of product returns, we defer recognition of product revenue and related costs until the later of (i) the end of the sixty day period or (ii) when the customer payment has been received.

We recognize government grants received as revenue as the grants are central to the Company's ongoing operations. Revenue is earned as research expenses related to the grants are incurred. Funds received from government grants in advance of work being performed are recorded as deferred revenue until earned.

We recognized revenue previously received under our former alliance with ADM in accordance with the accounting guidance on revenue recognition and revenue arrangements with multiple deliverables. The ADM arrangement contained multiple elements including obligations for us to provide future compounding services, sales and marketing services, and certain research and development activities. We determined that these elements could not be separated and accounted for individually as separate units of accounting. Therefore, payments received from the ADM alliance through December 31, 2011 were classified as deferred revenue. When the alliance terminated in February of 2012, we had no remaining performance obligations, and as a result, we recognized all of the previously deferred revenue.

Fees to license the use of our proprietary and licensed technologies are recognized only after both the license period has commenced and the licensed technology, if any, has been delivered to the licensee. Royalty revenue is recognized when it becomes determinable and collectability is reasonably assured, otherwise we recognize royalty revenue upon receipt of payment.

Inventory

We state inventory at the lower of cost or market and value inventory using the average cost method. We analyze our inventory levels quarterly and write down, as a cost of product revenue, inventory we consider to be in excess of expected sales requirements, that fails to meet commercial sales specifications or that has become obsolete.

Stock-Based Compensation

The accounting standard for stock-based compensation requires that all stock- based awards to employees be recognized as an expense in the consolidated financial statements and that such expense be measured at the fair value of the award.

Determining the appropriate fair value model and calculating the fair value of stock-based payment awards requires the use of highly subjective assumptions, including the expected life of the

stock-based payment awards and stock price volatility. We use the Black-Scholes option-pricing model to value our option grants and determine the related compensation expense. The assumptions used in calculating the fair value of stock-based awards represent management's best estimates, but the estimates involve inherent uncertainties and the application of management judgment. As a result, if factors change, and we use different assumptions, our stock-based compensation expense could be materially different in the future. See Note 14 to the consolidated financial statements for further discussion on the key assumptions used to determine the fair values of option grants pursuant to the Black-Scholes option pricing model.

We account for stock compensation arrangements with non-employees in accordance with the accounting standard for equity instruments that are issued to other than employees for acquiring, or in conjunction with selling, goods or services, using a fair value approach. For stock options granted to non-employees, the fair value of the stock options is estimated using the Black-Scholes valuation model. Stock-based compensation expense is recognized over the period of expected service by the non-employee. As the service is performed, we are required to update these assumptions and periodically revalue unvested options and make adjustments to the stock-based compensation expense using the new valuation. These adjustments may result in higher or lower stock-based compensation expense than originally estimated or recorded, with a corresponding increase or decrease in compensation expense in the statement of operations. Ultimately, the final compensation charge for each option grant to non-employees is unknown until those options have vested or services have been completed.

Results of Operations

Comparison of the Years Ended December 31, 2013 and 2012

Revenue

	Year ended December 31,		
	2013	2012	Change
Revenue from termination of ADM collaboration	$ —	$ 38,885	$ (38,885)
Product revenue	2,067	1,211	856
Grant revenue	2,490	1,971	519
Research and development revenue	618	—	618
License fee and royalty revenue	219	249	(30)
Total revenue	$ 5,394	$ 42,316	$ (36,922)

Total revenue was $5,394 and $42,316 for the twelve months ended December 31, 2013 and 2012, respectively. During the twelve months ended December 31, 2012, we recognized $38,885 of previously deferred revenue related to our Telles joint venture with ADM that terminated effective February 8, 2012. This deferred revenue, which was previously expected to be recognized over an estimated ten year period as we met our contractual performance obligations, became immediately recognizable upon termination of the joint venture as we had no further performance obligations following termination. During the twelve months ended December 31, 2013 and 2012, we also recognized $2,067 and $1,211, respectively, related to the sale of biopolymer products. The increase of $856 for the twelve months ended December 31, 2013 was primarily attributable to our implementation of our current product revenue recognition policy that resulted in a one-time shift of revenue, effectively pushing out sixty days of product revenue from 2012 to 2013. The Company's product revenue recognition policy is to defer product revenue recognition until the later of sixty days or cash receipt. At December 31, 2013 and December 31, 2012, short-term deferred revenue on the Company's balance sheet included $537 and $786 of deferred product revenue, respectively. During the twelve months ended December 31, 2013,

we recognized $2,490 of grant revenue compared to $1,971 in 2012. The increase of $519 in grant revenue for the twelve months ended December 31, 2013 was primarily attributable to new grants that commenced in 2013, including $407 in grant revenue earned from our subcontracted award with the University of California (Los Angeles) and funded by the Department of Energy. During 2013 we recognized $618 in research and development revenue that was attributable to a funded research and development arrangement with a third party that completed during our fiscal quarter ended June 30, 2013. During the twelve months ended December 31, 2013, we recognized $219 of license fee and royalty revenue and license and royalty revenue from related parties compared to $249 for the respective period in 2012.

We anticipate that product revenue will increase in 2014 as we plan to continue to gain market acceptance for our products, although there will be fluctuations from quarter to quarter. However, failure to receive additional funding during 2014 will force us to delay, scale back or otherwise modify our business and manufacturing plans, sales and marketing efforts, all of which could impact our product sales.

Costs and Expenses

	Year ended December 31,		
	2013	2012	Change
Cost of product revenue	$ 3,026	$ 1,426	$ 1,600
Research and development expenses	19,127	23,177	(4,050)
Selling, general, and administrative expenses	13,743	14,110	(367)
Total costs and expense	$ 35,896	$ 38,713	$ (2,817)

Cost of Product Revenue

Cost of product revenue was $3,026 and $1,426 for the twelve months ended December 31, 2013 and 2012, respectively. These costs primarily include the cost of inventory associated with product revenue recognized during the respective years. Cost of product revenue also includes the cost of product inventory written down during the respective years due to impairment. We routinely evaluate inventory in order to determine whether its current book value is below the cash value we expect to realize from its sale. During the twelve months ended December 31, 2013 and 2012, we recorded charges of $818 and $138 to cost of product revenue for inventory that we determined was impaired. Cost of product revenue for each year shown also includes the cost of sample inventory shipped to prospective customers, warehousing, product packaging and certain freight charges.

Although there will be fluctuations from period to period, we expect our overall cost of product revenue will continue to increase during the next twelve months, commensurate with our increasing product sales. However, failure to receive additional funding during 2014 will force us to delay, scale back or otherwise modify our business and manufacturing plans, sales and marketing efforts, all of which could impact our product sales and associated cost of product revenue. In addition, cost of product revenue will increase as our lower cost inventory acquired from Telles is depleted and replaced with our new formulated high-performance products that have higher costs than the material acquired from Telles. We may also incur costs to produce inventory at small scale commercial manufacturing operations either on our own or with third parties. Due to the expected high per unit cost of these smaller scale manufacturing operations, any inventory costs in excess of our expected saleable market price will be immediately expensed as cost of product revenue. We also anticipate that our cost of product revenue as a percentage of product sales will fluctuate during the next twelve months as our sales mix of biopolymer products changes.

Research and Development Expenses

Research and development expenses were $19,127 and $23,177 for the twelve months ended December 31, 2013 and 2012, respectively. The decrease of $4,050 over fiscal 2012 was primarily attributable to decreases in material production costs, employee compensation and related benefit expenses, consulting, and depreciation expense. Material production costs are primarily associated with our efforts to establish pilot manufacturing operations, including manufacturing of demonstration batches, for our biodegradable plastics and industrial chemicals products under development. Expenses related to material production costs were $2,159 and $4,455 for the twelve months ended December 31, 2013 and 2012, respectively. The decrease of $2,296 was primarily due to charges incurred during 2012 in connection with a terminated manufacturing demonstration agreement with a third party that were not repeated during 2013. Employee compensation and related benefit expenses were $11,045 and $12,047 for the twelve months ended December 31, 2013 and 2012, respectively. The decrease of $1,002 was primarily attributable to costs associated with our restructuring during the first quarter of 2012. Consulting costs decreased to $156 from $539 for the twelve months ended December 31, 2013 and 2012, respectively. The reduction of $383 was primarily due to our completion of a research project in 2012, as well as discontinued use of consultants for certain chemical projects in 2013. Depreciation expense was $831 and $1,164 for the twelve months ended December 31, 2013 and 2012, respectively. The decrease of $333 was primarily due to property and equipment reaching full depreciation, as well as relatively low acquisitions of fixed assets during 2013.

We expect research and development expenses to remain unchanged during 2014, except that we may incur additional design and engineering costs in connection with the expected selection of a manufacturing site. However, failure to receive additional funding during 2014 will force us to delay, scale back or otherwise modify our business, including our research and development activities.

Selling, General, and Administrative Expenses

Selling, general, and administrative expenses were $13,743 and $14,110 for the twelve months ended December 31, 2013 and 2012, respectively. The decrease of $367 over fiscal 2012 was primarily attributable to a decline in professional fees and consulting expenses. Professional fees decreased to $2,368 from $2,800 for the twelve months ended December 31, 2013 and 2012, respectively. The decrease of $432 was primarily due to a reduction in fees for patent related activities and a reduction in litigation costs. These reductions were partially offset by increased accounting and auditing fees associated with our expanded activities in Germany and the European Union. Consulting expense decreased to $665 from $792 for the twelve months ended December 31, 2013 and 2012, respectively. The decrease of $127 was attributable to a reduction in marketing and sales consulting services. During the twelve months ended December 31, 2013, reductions in employee compensation and benefit expenses as a result of the Company's 2012 restructuring were offset by approximately $800 of one-time severance, recruiting, and legal transition costs associated with the replacement of our chief executive officer.

We expect our selling, general and administrative expenses to increase during 2014 as we continue to expand our biopolymer sales and marketing activities. However, failure to receive additional funding during 2014 will force us to delay, scale back or otherwise modify our business, including our sales and marketing activities.

Other Income (Net)

	Year ended December 31, 2013	2012	Change
Interest income, net	$ 51	$ 124	$ (73)
Other expense, net	(55)	(97)	42
Total other income (expense), net	$ (4)	$ 27	$ (31)

Other income (expense), net were expenses of $4 and income of $27 for the years ended December 31, 2013 and 2012, respectively. Other income (expense), net during both periods consisted primarily of income from our investments, offset by investment management and custodial fees.

Comparison of the Years Ended December 31, 2012 and 2011

Revenue

	Year ended December 31, 2012	2011	Change
Revenue from termination of ADM collaboration	$ 38,885	$ —	$ 38,885
Product revenue	1,211	—	1,211
Grant revenue	1,971	918	1,053
License fee and royalty revenue	249	507	(258)
Total revenue	$ 42,316	$ 1,425	$ 40,891

Total revenue was $42,316 and $1,425 for the twelve months ended December 31, 2012 and 2011, respectively. During the twelve months ended December 31, 2012, we recognized $38,885 of previously deferred revenue related to our Telles joint venture with ADM that terminated effective February 8, 2012. This deferred revenue, which was previously expected to be recognized over an estimated ten year period as we met our contractual performance obligations, became immediately recognizable upon termination of the joint venture as we had no further performance obligations following termination. During the twelve months ended December 31, 2012 we recognized $1,971 of grant revenue compared to $918 in 2011. The increase in grant revenue for the twelve months ended December 31, 2012 was primarily attributable to increased revenue of $1,053 earned from our DOE Renewable Enhanced Feedstocks for Advanced Biofuels and Bioproducts ("REFABB") grant that commenced in September 2011. During the twelve months ended December 31, 2012, we also recognized $1,211 of product revenue from sales of biopolymer inventory acquired in March 2012 from our terminated Telles joint venture with ADM. There was no product revenue during the twelve months ended December 31, 2011, because revenue from Mirel product sales was recognized by Telles during that period. During the twelve months ended December 31, 2012 we recognized $152 of license fee and royalty revenue from related parties compared to $447 for the respective period in 2011. License fee and royalty revenue from related parties decreased due to a decline in royalties received under a licensing arrangement with Tepha, Inc. ("Tepha"), a related party.

Costs and Expenses

	Year ended December 31, 2012	2011	Change
Cost of product revenue	$ 1,426	$ —	$ 1,426
Research and development expenses	23,177	24,445	(1,268)
Selling, general, and administrative expenses	14,110	15,841	(1,731)
Total costs and expense	$ 38,713	$ 40,286	$ (1,573)

Cost of Product Revenue

Cost of product revenue was $1,426 for the twelve months ended December 31, 2012. These costs primarily include inventory product costs of $474 associated with product revenue recognized during the period, plus current period freight and warehousing costs of $328 and $515, respectively. Cost of product revenue also includes the cost of sample inventory provided to prospective customers. Included in freight and warehousing costs are charges of approximately $291 incurred in connection with our consolidation of inventory into fewer, less-expensive warehouse locations and the cost of inventory shipments to our European warehouse. We also evaluate inventory for impairment on a regular basis, and at December 31, 2012, we recorded an expense of $138 primarily to reduce inventory for obsolete raw materials.

Research and Development Expenses

Research and development expenses (including the cost of the ADM collaboration in 2011) were $23,177 and $24,445 for the twelve months ended December 31, 2012 and 2011, respectively. The decrease of $1,268 was primarily attributable to decreases in contract research, employee compensation and related benefit expenses, travel, consulting, licensing and depreciation expense partially offset by an increase in material production costs. Expenses related to material production costs were $4,455 and $2,054 for the twelve months ended December 31, 2012 and 2011, respectively. The increase of $2,401 was primarily due to expenses incurred in connection with a manufacturing demonstration agreement. Contract research was $722 and $2,410 for the twelve months ended December 31, 2012 and 2011, respectively. The decrease of $1,688 was primarily attributable to lower contracted research support provided to the University of Massachusetts (Lowell) and other parties for biopolymer research and development, as a result of the termination of the Telles joint venture. Employee compensation and related benefit expenses were $12,047 and $12,847 for the twelve months ended December 31, 2012 and 2011, respectively. The decrease of $800 was primarily attributable to a decrease in employee headcount in response to the termination of the Telles joint venture. Travel expenses were $318 and $715 for the twelve months ended December 31, 2012 and 2011, respectively. The decrease of $397 was primarily the result of our reduced headcount and cost containment measures enacted by the Company. Consulting costs decreased to $539 from $769 for the twelve months ended December 31, 2012 and 2011, respectively. The reduction of $230 was also primarily due to efforts made to reduce expenses as a result of the termination of the Telles joint venture. Licensing expense decreased to $271 from $532 for the twelve months ended December 31, 2012 and 2011, respectively, as certain licensing fee obligations reached their conclusion. Depreciation expense was $1,164 and $1,381 for the twelve months ended December 31, 2012 and 2011, respectively. The decrease of $217 was primarily due to property and equipment reaching full depreciation.

Selling, General, and Administrative Expenses

Selling, general, and administrative expenses were $14,110 and $15,841 for the twelve months ended December 31, 2012 and 2011, respectively. The decrease of $1,731 was primarily attributable to

decreases in employee compensation and related benefit expenses, travel and consulting costs. Employee compensation and related benefit expenses were $7,858 and $9,014 for the twelve months ended December 31, 2012 and 2011, respectively. The decrease of $1,156 was primarily due to reduction of headcount in response to the termination of the Telles joint venture. Travel expense decreased to $502 from $787 for the twelve months ended December 31, 2012 and 2011, respectively. The decrease of $285 was primarily as a result of cost containment measures enacted by the Company in connection with the Telles joint venture termination. Consulting expense decreased to $792 from $965 for the twelve months ended December 31, 2012 and 2011, respectively. The decrease of $173 was attributable to a reduction in marketing and sales consulting services, also made in connection with the terminated joint venture.

Other Income (Net)

	Year ended December 31,		
	2012	2011	Change
Interest income, net	$ 124	$ 156	$ (32)
Other expense, net	(97)	(80)	(17)
Total other income (expense), net	$ 27	$ 76	$ (49)

Other income (expense) net, were income of $27 and $76 for the years ended December 31, 2012 and 2011, respectively. Other income (expense), net during both periods consisted primarily of income from our investments, offset by investment management and custodial fees.

Liquidity and Capital Resources

Currently, we require cash to fund our working capital needs, to purchase capital assets and to pay our operating lease obligations.

The primary sources of our liquidity have been:

- equity financing;
- our former strategic alliance with ADM;
- government grants;
- product revenues; and
- interest earned on cash and short-term investments.

We have incurred significant expenses relating to our research and development efforts. As a result, we have incurred net losses since our inception. As of December 31, 2013, we had an accumulated deficit of $272,538. Our total unrestricted cash, cash equivalents and investments as of December 31, 2013 were $19,209 as compared to $46,281 at December 31, 2012. As of December 31, 2013, we had no outstanding debt.

Our cash and cash equivalents at December 31, 2013 were held for working capital purposes. We do not enter into investments for trading or speculative purposes. The primary objective of our investment activities is to preserve our capital. As of December 31, 2013, we had restricted cash of $619. Restricted cash consists of $494 held in connection with the lease agreement for our Cambridge, Massachusetts facility and $125 held in connection with our corporate credit card program. Investments are made in accordance with our corporate investment policy, as approved by our Board of Directors. Investments are limited to high quality corporate debt, U.S. Treasury bills and notes, bank debt obligations, municipal debt obligations and asset-backed securities. The policy establishes maturity limits, concentration limits, and liquidity requirements. As of December 31, 2013, we were in compliance with this policy.

With the exception of 2012, when the Company recognized $38,885 of deferred revenue from the terminated Telles joint venture, it has recorded losses since its inception, including our fiscal year ended December 31, 2013. The Company held unrestricted cash, cash equivalents and investments of $19,209 at December 31, 2013. Our present capital resources are not sufficient to fund our planned operations for a twelve month period, and therefore, raise substantial doubt about our ability to continue as a going concern. We will, during 2014, require significant additional funding to continue our operations. Failure to receive additional funding could cause us to cease operations, in part or in full. We believe that our existing resources and the cash to be generated from existing grants and expected product sales will be sufficient to meet our projected operating requirements into the third quarter of 2014. However, any significant costs incurred to establish a commercial biopolymer manufacturing facility will shorten this liquidity horizon. We continue to face significant challenges and uncertainties and, as a result, our available capital resources may be consumed more rapidly than currently expected due to (a) lower than expected sales of our biopolymer products as a result of slow market adoption; (b) increases in capital costs and operating expenses related to the establishment and start-up of commercial manufacturing operations either on our own or with third parties; (c) changes we may make to the business that affect ongoing operating expenses; (d) changes we may make to our business strategy; (e) changes in our research and development spending plans; and (f) other items affecting our forecasted level of expenditures and use of cash resources. In any event, we will require significant additional financing to continue to fund our operations and to support our capital needs. Based on our current plans and projections, which remain subject to numerous uncertainties, we anticipate raising $50-$60 million over the next 12-15 months. The timing, structure and vehicles for obtaining this financing are under consideration and it may be accomplished in stages. Furthermore, we expect that if we issue equity or debt securities to raise additional funds, our existing stockholders will experience dilution, and the new equity or debt securities may have rights, preferences and privileges senior to those of our existing stockholders. If we raise additional funds through collaboration, licensing or other similar arrangements, it may be necessary to relinquish valuable rights to our potential products or proprietary technologies, or grant licenses on terms that are not favorable to the Company. Without additional funds, we will be forced to delay, scale back or eliminate some of our sales and marketing efforts, research and development activities, or other operations and potentially delay product development in an effort to provide sufficient funds to continue our operations and/or seek strategic alternatives. If any of these events occurs, our ability to achieve our development and commercialization goals would be adversely affected.

Net cash used in operating activities was $26,648 for the year ended December 31, 2013 compared to net cash of $31,736 and $31,731 used in operating activities during 2012 and 2011, respectively. The cash used during 2013 primarily reflects the net loss for the year partially offset by non-cash expense, including stock-based compensation expense of $3,193, depreciation expense of $928, inventory impairment write-downs totaling $818 and the Company's 401(k) stock matching contribution expense of $397. The decrease in cash used for operating activities during 2013 compared to 2012 of $5,088 partially reflects the Company's purchase of Telles inventory during 2012 for $2,982 and $2,258 in payments made to Antibióticos S.A. for facility improvements, manufacturing equipment and for raw materials for anticipated production of biopolymer demonstration batches.

Net cash of $19,788 was provided by investing activities during the twelve months ended December 31, 2013, compared to net cash provided by investing activities during 2012 of $25,018 and $8,908 used in investing activities during 2011. Net cash provided by investing activities during the twelve months ended December 31, 2013 include $36,821 provided by the sale and maturity of investments, partially offset by $16,635 used to purchase investments. Net cash provided by investing activities during the twelve months ended December 31, 2012 included $84,303 provided by the sale and maturity of investments, partially offset by $58,933 used to purchase investments.

Net cash of $14 was provided by financing activities during the twelve months ended December 31, 2013, compared to net cash of $19 and $49,407 provided by investment activities during 2012 and 2011, respectively. Net cash provided by financing activities during 2013 and 2012 was solely attributable to the proceeds received from the exercise of stock options. Net cash provided by financing activities during 2011 was primarily attributable to net proceeds of $49,333 provided from our common stock offering that was completed during May 2011.

Off-Balance Sheet Arrangements

As of December 31, 2013, we had no off-balance sheet arrangements as defined in Item 303(a)(4) of the Securities and Exchange Commission's Regulation S-K.

Contractual Obligations

The following table summarizes our contractual obligations at December 31, 2013:

	Payments Due by Period				
	Total	Less than 1 year	2 - 3 years	4 - 5 years	More than 5 years
Operating lease obligations	$ 9,281	$ 1,449	$ 2,803	$ 2,942	$ 2,087
Purchase obligations	25	25	—	—	—
Total	$ 9,306	$ 1,474	$ 2,803	$ 2,942	$ 2,087

Our primary obligations relate to current office and laboratory space. The lease for our primary facility located on Erie Street in Cambridge Massachusetts will expire in May 2020 unless either we or the landlord exercise a one-time option to terminate the lease early effective May 2017 with appropriate advance notice. We also lease office and laboratory space at 650 Suffolk Street, Lowell, Massachusetts where the majority of our general and administrative employees are located. Our lease for this facility expires in May 2020, with the option to renew for one five-year period. This lease is subject to a one-time option to terminate the lease early effective May 2017 with appropriate advance notice. Our wholly-owned subsidiary, Metabolix GmbH ("GmbH"), leases approximately 2,500 square feet of office space in Cologne, Germany. The lease term for this facility is open-ended but may be terminated by the landlord or GmbH with six months advance notice. Our wholly-owned subsidiary, Metabolix Oilseeds, Inc. ("MOI"), located in Saskatoon, Saskatchewan, Canada, leases approximately 2,000 square feet of office, laboratory and greenhouse space. MOI's leases for these facilities expire in August 2014.

Related Party Transactions

We entered into sublicense agreements in 1999 and 2003 with Tepha Inc. ("Tepha"), a related party, to sublicense certain technology to Tepha. The sublicenses contain provisions for us to receive maintenance fees, milestone payments, royalties on product sales and a share of sublicensing revenues received by Tepha.

See Note 10 to our consolidated financial statements for a full description of our related party transactions.

Effects of Inflation

Our assets are primarily monetary, consisting of cash, cash equivalents and investments. Because of their liquidity, these assets are not directly affected by inflation. Since we intend to retain and continue to use our equipment, furniture and fixtures and leasehold improvements, we believe that the incremental inflation related to replacement costs of such items will not materially affect our

operations. However, the rate of inflation affects our expenses, such as those for employee compensation, which could increase our level of expenses and the rate at which we consume our financial resources.

Recent Accounting Standards Changes

For a discussion of recent accounting standards please read Note 2, Summary of Significant Accounting Policies, to our consolidated financial statements included in this report.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURE ABOUT MARKET RISK

Our exposure to market risk is confined to our cash, cash equivalents and marketable securities. The unrestricted cash and cash equivalents and marketable securities are held for working capital purposes. Our primary investment objective is capital preservation, with a secondary objective of generating income on such capital. We do not enter into investments for trading or speculative purposes.

Interest Rate Risk

We invest in high-quality financial instruments, primarily money market funds, federal agency notes, U.S. treasury notes, investment-grade commercial paper, and corporate debt securities. All of our interest-bearing securities are subject to interest rate risk and could decline in value if interest rates fluctuate. Because of the short-term maturities of our cash equivalents and short-term investments, we do not believe that an increase in market rates would have any significant impact on the realized value of our marketable securities. However, in a declining interest rate environment, as short-term investments mature, reinvestment occurs at less favorable interest rates which would negatively impact our investment income. Exposure to market rate risk for changes in interest rates relates to our unrestricted cash, cash equivalents and investments, totaling $19,209 at December 31, 2013. Based on a hypothetical 10% adverse movement in interest rates, we believe the potential annual losses in future earnings and cash flows would be immaterial.

Currency Exchange Rates

We have foreign currency exposure to exchange rate fluctuations and particularly with respect to the euro and Canadian dollar. Therefore, our investment in our subsidiaries is sensitive to fluctuations in currency exchange rates. The effect of a change in currency exchange rates on our net investment, including intercompany loans and payables, in international subsidiaries is reflected in the accumulated other comprehensive (loss) income component of stockholders' equity. If rates of exchange for the euro and Canadian dollar were to have depreciated immediately and uniformly by 10% relative to the U.S. dollar from levels at December 31, 2013, the result would have been a reduction of stockholders' equity of approximately $0.3 million.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The consolidated financial statements and related financial statement schedules required to be filed are indexed on page F-1 and are incorporated herein.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

Effectiveness of Disclosure Controls and Procedures

As of the end of the period covered by this Annual Report on Form 10-K, under the supervision of our Chief Executive Officer and our Chief Financial Officer, we evaluated the effectiveness of our disclosure controls and procedures, as such term is defined in Rule 13a-15(e) and Rule 15d-15(e) under the Exchange Act. Based on this evaluation, our Chief Executive Officer and our Chief Financial Officer concluded that as of December 31, 2013 our disclosure controls and procedures are effective to provide reasonable assurance that information we are required to disclose in reports that we file or submit under the Exchange Act (1) is recorded, processed, summarized and reported within the time periods specified in Securities and Exchange Commission rules and forms, and (2) is accumulated and communicated to our management, including our Chief Executive Officer and our Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure. Our disclosure controls and procedures include components of our internal control over financial reporting. Management's assessment of the effectiveness of our internal control over financial reporting is expressed at the level of reasonable assurance because a control system, no matter how well designed and operated, can provide only reasonable, but not absolute, assurance that the control system's objectives will be met.

Management's Annual Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act. Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Our internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets; (ii) provide reasonable assurance that transactions are recorded to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are made only in accordance with authorizations of our management and directors; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on our financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management assessed the effectiveness of our internal control over financial reporting as of December 31, 2013. In making this assessment, management used the criteria set forth in the 1992 *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

Based on its assessment of internal control over financial reporting, management has concluded that, as of December 31, 2013, our internal control over financial reporting was effective to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.

Changes in Internal Control over Financial Reporting

There have been no changes in our internal control over financial reporting identified in connection with the evaluation required by Rule 13a-15(d) of the Exchange Act that occurred during our last fiscal quarter in the period covered by this Annual Report on Form 10-K that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

None.

PART III

Pursuant to General Instructions G to Form 10-K, the information required for Part III, Items 10, 11, 12, 13 and 14, is incorporated herein by reference from the Company's proxy statement for the Annual Meeting of Stockholders to be held on May 20, 2014 which is expected to be filed not later than 120 days after the fiscal year end covered by this Form 10-K.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

(a) The following documents are filed as part of this Report:

(1) **Financial Statements**

See Index to Financial Statements on page F-1.

(2) **Supplemental Schedules**

All schedules have been omitted because the required information is not present in amounts sufficient to require submission of the schedule, or because the required information is included in the consolidated financial statements or notes thereto.

(3) **Exhibits**

See Item 15(b) below.

(b) The following exhibits are filed as part of, or incorporated by reference into, this Annual Report on Form 10-K:

Exhibit Number	Description
3.1(1)	Amended and Restated Certificate of Incorporation of the Registrant.
3.3(1)	Amended and Restated By-laws of the Registrant.
3.4(5)	Certificate of Designations, Preferences and Rights of a Series of Preferred Stock of Metabolix, Inc. classifying and designating the Series A Junior Participating Cumulative Preferred Stock.
4.1(1)	Specimen Stock Certificate for shares of the Registrant's Common Stock.
4.2(5)	Shareholder Rights Agreement, dated as of July 7, 2009, between Metabolix, Inc. and American Stock Transfer & Trust Company, LLC, as Rights Agent.
4.3(9)	Amendment No. 1 to Shareholder Rights Agreement, dated as of February 6, 2012, between the Company and American Stock Transfer & Trust Company, LLC, as Rights Agent.
10.1†(1)	1995 Stock Plan.
10.1.1†(1)	1995 Stock Plan, Form of Incentive Stock Option Agreement.
10.1.2†(1)	1995 Stock Plan, Form of Non-Qualified Stock Option Agreement.
10.2†(1)	2005 Stock Plan.
10.2.1†(1)	2005 Stock Plan, Form of Incentive Stock Option Agreement.

Exhibit Number	Description
10.2.2†(1)	2005 Stock Plan, Form of Non-Qualified Stock Option Agreement.
10.3†(1)	2006 Stock Option and Incentive Plan.
10.3.1†(1)	2006 Stock Option and Incentive Plan, Form of Incentive Stock Option Agreement.
10.3.2†(1)	2006 Stock Option and Incentive Plan, Form of Non-Qualified Stock Option Agreement.
10.3.3†(1)	2006 Stock Option and Incentive Plan, Form of Director Non-Qualified Stock Option Agreement.
10.4#(1)	License Agreement between the Company and Massachusetts Institute of Technology dated July 15, 1993, as amended.
10.5†(8)	Amended and Restated Employment Agreement between the Company and Richard P. Eno dated March 17, 2011.
10.6†(1)	Employment Agreement between the Company and Oliver P. Peoples dated July 20, 2006.
10.6.1†(7)	First Amendment to Employment Agreement between the Company and Oliver P. Peoples executed December 19, 2008.
10.6.2†(7)	Second Amendment to Employment Agreement between the Company and Oliver P. Peoples executed February 25, 2009.
10.7†(4)	Employment Agreement between the Company and Joseph D. Hill executed March 21, 2008.
10.7.1†(7)	First Amendment to Employment Agreement between the Company and Joseph D. Hill executed December 23, 2008.
10.8†(12)	Severance Agreement between the Company and Sarah P. Cecil executed July 1, 2013.
10.9†(6)	Employment Agreement between the Company and Johan van Walsem executed July 9, 2009.
10.9.1(12)	Letter Agreement between the Company and Johan van Walsem executed on July 12, 2013.
10.10†(10)	Employment Agreement between the Company and Lynne H. Brum executed November 14, 2011.
10.11†*	Employment Agreement between the Company and Joseph Shaulson dated December 19, 2013.
10.12†*	Noncompetition, Confidentiality and Inventions Agreement between the Company and Joseph Shaulson dated December 19, 2013.
10.13†*	Non-Qualified Stock Option Agreement between the Company and Joseph Shaulson dated December 19, 2013.
10.14†*	Restricted Stock Unit Award Agreement between the Registrant and Joseph Shaulson dated January 2, 2014.
10.15†(1)	Form of Employee Noncompetition, Nondisclosure and Inventions Agreement with Oliver P. Peoples and Johan van Walsem.

Exhibit Number	Description
10.16†(1)	Form of Noncompetition, Nondisclosure and Inventions Agreement between the Registrant Richard P. Eno, Joseph D. Hill, Robert E. Engle, Lynne Brum, and Sarah P. Cecil.
10.17†(1)	Form of Indemnification Agreement between the Registrant and its Directors and Officers.
10.18(1)	Lease Agreement between the Registrant and 21 Erie Realty Trust dated as of December 29, 2003 for the premises located at 21 Erie Street, Cambridge, Massachusetts 02139.
10.18.1*	Second Amendment to Lease between the Company and 21 Erie Realty Trust dated as of October 25, 2013 for the premises located at 21 Erie Street, Cambridge, Massachusetts 02139.
10.19(2)	Lease between Fortune Wakefield, LLC and Metabolix, Inc. dated March 30, 2007.
10.19.1(11)	First Amendment of Lease between Fortune Wakefield, LLC and Metabolix, Inc. dated February 29, 2012.
10.19.2*	Second Amendment of Lease between Fortune Wakefield, LLC and Metabolix, Inc. dated October 24, 2013.
10.20#(1)	License Agreement between the Company and Tepha, Inc. dated as of October 1, 1999.
10.21#(1)	License Agreement between the Company and Tepha, Inc. dated as of September 9, 2003.
10.22#(3)	Exclusive License Agreement between the Company and Abbott Laboratories dated November 12, 2007.
10.23(9)	Letter Agreement, dated as of February 6, 2012, by and among the Company, Jack W. Schuler, Renate Schuler and the Schuler Family Foundation.
10.24(14)	Confidential Disclosure Agreement dated February 6, 2013, between the Company and Jack W. Schuler.
10.24.1*	Amendment and Extension of Confidential Disclosure Agreement between the Company and Jack W. Schuler executed February 5, 2014
14.1(10)	Metabolix, Inc. Code of Business Conduct and Ethics.
21.1(13)	Subsidiaries of the Registrant.
23.1*	Consent of PricewaterhouseCoopers LLP, an independent registered public accounting firm.
24.1	Power of Attorney (incorporated by reference to the signature page of this Annual Report on Form 10-K).
31.1*	Certification Pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934.
31.2*	Certification Pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934.
32.1*	Certification Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

Exhibit Number	Description
101.1*	The following financial information from the Metabolix Inc. Annual Report on Form 10-K for the year ended December 31, 2013 formatted in XBRL; (i) Consolidated Balance Sheets, December 31, 2013 and December 31, 2012; (ii) Consolidated Statements of Operations, Years Ended December 31, 2013, 2012 and 2011; (iii) Consolidated Statements of Comprehensive Income (Loss), Years Ended December 31, 2013, 2012 and 2011; (iv) Consolidated Statements of Cash Flows, Years Ended December 31, 2013, 2012 and 2011; and (v) Consolidated Statements of Stockholders' Equity for the Years Ended December 31, 2013, 2012 and 2011; and (vi) Notes to Consolidated Financial Statements.
101.INS*	XBRL Instance Document.
101.SCH*	XBRL Taxonomy Extension Schema.
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase.
101.DEF*	XBRL Taxonomy Extension Definition Linkbase.
101.LAB*	XBRL Taxonomy Extension Label Linkbase.
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase.

† Indicates a management contract or any compensatory plan, contract or arrangement.

Confidential treatment has been granted for certain portions of this document pursuant to a Commission order. Such provisions have been filed separately with the Commission.

* Filed herewith

(1) Incorporated by reference herein to the exhibits to the Company's Registration Statement on Form S-1 (File No. 333-135760)

(2) Incorporated by reference herein to the exhibits to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2007 (File No. 001-33133)

(3) Incorporated by reference herein to the exhibits to the Company's 2007 Annual Report on Form 10-K filed March 13, 2008 (File No. 001-33133)

(4) Incorporated by reference herein to the exhibits to the Company's Report on Form 8-K filed March 24, 2008 (File No. 001-33133)

(5) Incorporated herein by reference to the exhibits to the Company's Registration Statement on Form 8-A on July 8, 2009 (File No. 001-33133)

(6) Incorporated by reference herein to the exhibits to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2009 (File No. 001-33133)

(7) Incorporated by reference herein to the exhibits to the Company's 2008 Annual Report on Form 10-K filed March 12, 2009 (File No. 001-33133)

(8) Incorporated by reference herein to the exhibits to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2011 (File No. 001-33133)

(9) Incorporated by reference herein to the exhibits to the Company's Report on Form 8-K filed February 10, 2012 (File No. 001-33133)

(10) Incorporated by reference herein to the exhibits to the Company's 2011 Annual Report on Form 10-K filed March 12, 2012 (File No. 001-33133)

(11) Incorporated by reference herein to the exhibits to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2012 (File No. 001-33133)

(12) Incorporated by reference herein to the exhibits to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2013 (File No. 001-33133)

(13) Incorporated by reference herein to the exhibits to the Company's 2012 Annual Report on Form 10-K filed March 28, 2013 (File No. 001-33133)

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

METABOLIX, INC.

March 28, 2014 By: /s/ JOSEPH SHAULSON

Joseph Shaulson
President and Chief Executive Officer
(Principal Executive Officer)

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Joseph H. Shaulson, Joseph D. Hill, and Sarah P. Cecil, jointly and severally, his or her attorney-in-fact, with the power of substitution, for him or her in any and all capacities, to sign any amendments to this Annual Report on Form 10-K and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that each of said attorneys-in-fact, or his or her substitute or substitutes, may do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Name	Title	Date
/s/ JOSEPH SHAULSON Joseph Shaulson	President and Chief Executive Officer and Director (Principal Executive Officer)	March 28, 2014
/s/ JOSEPH D. HILL Joseph D. Hill	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	March 28, 2014
/s/ PETER N. KELLOGG Peter N. Kellogg	Director	March 28, 2014
/s/ CELESTE B. MASTIN Celeste B. Mastin	Director	March 28, 2014
/s/ OLIVER P. PEOPLES Oliver P. Peoples	Director	March 28, 2014

Name	Title	Date
/s/ ANTHONY J. SINSKEY		
Anthony J. Sinskey, Sc.D.	Director	March 28, 2014
/s/ MATTHEW STROBECK		
Matthew Strobeck	Director	March 28, 2014
/s/ ROBERT L. VAN NOSTRAND		
Robert L. Van Nostrand	Director	March 28, 2014

METABOLIX, INC.
Index to Consolidated Financial Statements

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Metabolix, Inc.

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of operations, comprehensive income (loss), stockholders' equity and cash flows present fairly, in all material respects, the financial position of Metabolix, Inc. and its subsidiaries at December 31, 2013 and 2012, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2013 in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the consolidated financial statements, the Company has suffered recurring losses from operations and has insufficient capital resources available as of December 31, 2013 to fund planned operations through 2014, which raises substantial doubt about its ability to continue as a going concern. Management's plans in regard to this matter are also described in Note 1. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/s/ PricewaterhouseCoopers LLP

Boston, Massachusetts
March 28, 2014

METABOLIX, INC.

CONSOLIDATED BALANCE SHEETS

(In thousands, except share and per share amounts)

	December 31, 2013	December 31, 2012
Assets		
Current Assets:		
Cash and cash equivalents	$ 7,698	$ 14,572
Short-term investments	11,511	29,201
Inventory	4,074	3,204
Accounts receivable	997	839
Due from related parties	51	75
Unbilled receivables	187	372
Prepaid expenses and other current assets	713	692
Total current assets	25,231	48,955
Restricted cash	619	594
Property and equipment, net	793	1,358
Long-term investments	—	2,508
Other assets	95	95
Total assets	$ 26,738	$ 53,510
Liabilities and Stockholders' Equity		
Current Liabilities:		
Accounts payable	$ 579	$ 1,233
Accrued expenses	4,892	3,519
Current portion of deferred rent	55	165
Short-term deferred revenue	669	1,067
Total current liabilities	6,195	5,984
Deferred rent, net of current portion	—	55
Other long-term liabilities	145	131
Total liabilities	6,340	6,170
Commitments and contingencies (Note 9)		
Stockholders' Equity:		
Preferred stock ($0.01 par value per share); 5,000,000 shares authorized; no shares issued or outstanding	—	—
Common stock ($0.01 par value per share); 100,000,000 shares authorized at December 31, 2013 and 2012, 34,581,449 and 34,306,570 shares issued and outstanding at December 31, 2013 and 2012, respectively	346	343
Additional paid-in capital	292,661	289,050
Accumulated other comprehensive loss	(71)	(21)
Accumulated deficit	(272,538)	(242,032)
Total stockholders' equity	20,398	47,340
Total liabilities and stockholders' equity	$ 26,738	$ 53,510

The accompanying notes are an integral part of these consolidated financial statements.

METABOLIX, INC.

CONSOLIDATED STATEMENTS OF OPERATIONS

(In thousands, except share and per share amounts)

	Years Ended December 31,		
	2013	2012	2011
Revenue:			
Revenue from termination of ADM collaboration	$ —	$ 38,885	$ —
Product revenue	2,067	1,211	—
Grant revenue	2,490	1,971	918
Research and development revenue	618	—	—
License fee and royalty revenue	219	249	507
Total revenue	5,394	42,316	1,425
Costs and expenses:			
Cost of product revenue	3,026	1,426	—
Research and development	19,127	23,177	24,445
Selling, general, and administrative	13,743	14,110	15,841
Total costs and expenses	35,896	38,713	40,286
Income (loss) from operations	(30,502)	3,603	(38,861)
Other income (net):			
Interest income, net	51	124	156
Other expense, net	(55)	(97)	(80)
Total other income (expense), net	(4)	27	76
Net income (loss)	$ (30,506)	$ 3,630	$ (38,785)
Net income (loss) per share:			
Basic	$ (0.88)	$ 0.11	$ (1.24)
Diluted	$ (0.88)	$ 0.11	$ (1.24)
Number of shares used in per share calculations:			
Basic	34,471,301	34,217,298	31,257,376
Diluted	34,471,301	34,279,779	31,257,376

The accompanying notes are an integral part of these consolidated financial statements.

METABOLIX, INC.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

(In thousands)

	Years Ended December 31,		
	2013	2012	2011
Net income (loss):			
Other comprehensive income (loss)	$ (30,506)	$ 3,630	$ (38,785)
Change in unrealized gain (loss) on investments	(12)	(3)	20
Change in foreign currency translation adjustment	(38)	(6)	(17)
Total other comprehensive income (loss)	(50)	(9)	3
Comprehensive income (loss)	$ (30,556)	$ 3,621	$ (38,782)

The accompanying notes are an integral part of these consolidated financial statements.

METABOLIX, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS

(In thousands)

	Year Ended December 31,		
	2013	2012	2011
Cash flows from operating activities			
Net income (loss)	$ (30,506)	$ 3,630	$ (38,785)
Adjustments to reconcile net income (loss) to cash used in operating activities:			
Depreciation	928	1,298	1,507
Charge for 401(k) company common stock match	397	408	529
Stock-based compensation	3,193	3,807	4,633
Inventory impairment	818	138	—
Changes in operating assets and liabilities:			
Inventory	(1,688)	(3,342)	—
Accounts receivable	(158)	(693)	(146)
Unbilled receivable	185	(68)	(296)
Due from related parties	24	236	(71)
Prepaid expenses and other assets	(21)	108	68
Accounts payable	(654)	721	273
Accrued expenses	1,383	(34)	(623)
Deferred rent and long-term liabilities	(151)	(154)	(153)
Deferred revenue	(398)	(37,791)	1,333
Net cash used in operating activities	(26,648)	(31,736)	(31,731)
Cash flows from investing activities			
Purchase of property and equipment	(373)	(392)	(895)
Proceeds from sale of equipment	—	12	—
Change in restricted cash	(25)	28	—
Purchase of investments	(16,635)	(58,933)	(107,477)
Proceeds from sale and maturity of short-term investments	36,821	84,303	99,464
Net cash provided by (used in) investing activities	19,788	25,018	(8,908)
Cash flows from financing activities			
Proceeds from options exercised	14	19	74
Proceeds from public stock offering, net of issuance costs	—	—	49,333
Net cash provided by financing activities	14	19	49,407
Effect of exchange rate changes on cash and cash equivalents	(28)	(6)	(17)
Net increase (decrease) in cash and cash equivalents	(6,874)	(6,705)	8,751
Cash and cash equivalents at beginning of period	14,572	21,277	12,526
Cash and cash equivalents at end of period	$ 7,698	$ 14,572	$ 21,277

The accompanying notes are an integral part of these consolidated financial statements

METABOLIX, INC.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

(In thousands, except share amounts)

	Common Stock		Additional Paid-In Capital	Accumulated other Comprehensive Income (loss)	Accumulated Deficit	Total Stockholders' Equity
	Shares	Par Value				
Balance, December 31, 2010	26,895,389	$ 269	$ 230,299	$ (15)	$ (206,877)	$ 23,676
Exercise of common stock options	21,851	—	74	—	—	74
Non-cash stock-based compensation expense	—	—	4,633	—	—	4,633
Issuance of common stock for 401k match	68,558	1	528	—	—	529
Issuance of common stock upon public offering, net of offering costs of $2,360	7,130,000	71	49,262	—	—	49,333
Change in unrealized loss on investments	—	—	—	20	—	20
Effect of foreign currency translation	—	—	—	(17)	—	(17)
Net loss	—	—	—	—	(38,785)	(38,785)
Balance, December 31, 2011	34,115,798	$ 341	$ 284,796	$ (12)	$ (245,662)	$ 39,463
Exercise of common stock options	11,436	—	19	—	—	19
Non-cash stock-based compensation expense	—	—	3,807	—	—	3,807
Issuance of common stock for 401k match	179,336	2	428	—	—	430
Change in unrealized loss on investments	—	—	—	(3)	—	(3)
Effect of foreign currency translation	—	—	—	(6)	—	(6)
Net income	—	—	—	—	3,630	3,630
Balance, December 31, 2012	34,306,570	$ 343	$ 289,050	$ (21)	$ (242,032)	$ 47,340
Exercise of common stock options	7,550	—	14	—	—	14
Non-cash stock-based compensation expense	—		3,193	—	—	3,193
Issuance of common stock for 401k match	267,329	3	404	—	—	407
Change in unrealized gain on investments	—	—	—	(12)	—	(12)
Effect of foreign currency translation	—	—	—	(38)	—	(38)
Net loss	—	—	—	—	(30,506)	(30,506)
Balance, December 31, 2013	34,581,449	$ 346	$ 292,661	$ (71)	$ (272,538)	$ 20,398

The accompanying notes are an integral part of these consolidated financial statements

METABOLIX, INC.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(In thousands, except for share and per share amounts)

1. Nature of Business

Metabolix, Inc. (the "Company") is an innovation-driven bioscience company which is focused on delivering sustainable solutions to the plastics and chemicals industries. The Company has core capabilities in microbial genetics, fermentation process engineering, chemical engineering, polymer science, plant genetics and botanical science, and has assembled these capabilities in a way that has allowed the integration of biotechnology with chemical engineering and industrial practice. The Company is subject to risks common to companies in the biotechnology industry including, but not limited to, development by the Company's competitors of new technological innovations, dependence on key personnel, protection of proprietary technology, the need to obtain additional funding, and compliance with government regulations.

The accompanying consolidated financial statements have been prepared on a basis which assumes that the Company will continue as a going concern and which contemplates the realization of assets and satisfaction of liabilities and commitments in the normal course of business. However, with the exception of 2012, when the Company recognized $38,885 of deferred revenue from the terminated Telles joint venture, it has recorded losses since its inception, including its fiscal year ended December 31, 2013. As of December 31, 2013, the Company held unrestricted cash, cash equivalents and investments of $19,209. The Company's present capital resources are not sufficient to fund its planned operations for a twelve month period, and therefore, raise substantial doubt about its ability to continue as a going concern. The Company will, during 2014, require significant additional funding to continue its operations. Based on current plans and projections, which remain subject to numerous uncertainties, the Company anticipates raising additional funds over the next 12-15 months. The timing, structure and vehicles for obtaining this level of financing are under consideration by the Company and may be accomplished in stages. The Company's goal, however, is to use this capital to build an intermediate scale specialty materials business based on PHA additives that serves as the foundation for its longer range plans and future growth of its biopolymers business. Failure to receive additional funding will force the Company to delay, scale back or otherwise modify its business and its manufacturing plans, its sales and marketing efforts, research and development activities and other operations, and/or seek strategic alternatives. The consolidated financial statements do not include any adjustments that may result from the outcome of these uncertainties. The Company believes that its existing resources and the cash to be generated from existing grants and expected product sales will be sufficient to meet its projected operating requirements into the third quarter of 2014. However, any significant costs incurred to establish a commercial biopolymer manufacturing facility will shorten this liquidity horizon. The Company continues to face significant challenges and uncertainties and, as a result, its available capital resources may be consumed more rapidly than currently expected due to (a) lower than expected sales of its biopolymer products as a result of slow market adoption; (b) increases in capital costs and operating expenses related to the establishment and start-up of commercial manufacturing operations either on its own or with third parties; (c) changes the Company may make to the business that affect ongoing operating expenses; (d) changes the Company may make to its business strategy; (e) changes in the Company's research and development spending plans; and (f) other items affecting the Company's forecasted level of expenditures and use of cash resources. In any event, the Company will, during 2014, require significant additional financing to continue to fund its operations and to support its capital needs. Management of the Company will attempt to obtain additional funding through public or private financing, collaborative arrangements with strategic partners, or through additional credit lines or other debt financing sources. However, there is

METABOLIX, INC.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(In thousands, except for share and per share amounts)

1. Nature of Business (Continued)

uncertainty regarding whether the Company can successfully execute these actions, and it can provide no assurance that it will. Furthermore, if the Company issues equity or debt securities to raise additional funds, its existing stockholders may experience dilution, and the new equity or debt securities may have rights, preferences and privileges senior to those of the Company's existing stockholders. If the Company raises additional funds through collaboration, licensing or other similar arrangements, it may be necessary to relinquish valuable rights to its potential products or proprietary technologies, or grant licenses on terms that are not favorable to the Company.

2. Summary of Significant Accounting Policies

Principles of Consolidation

The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries. All significant intercompany transactions were eliminated, including transactions with Metabolix GmbH, the Company's wholly-owned subsidiary that became operational in Germany during early 2013. Telles, LLC ("Telles"), the Company's former joint venture with Archer Daniels Midland Company ("ADM") that terminated in early 2012, was not consolidated by the Company.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America ("GAAP") requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting periods. Actual results could differ from those estimates.

Cash and Cash Equivalents

The Company considers all highly liquid investments purchased with an original maturity date of ninety days or less at the date of purchase to be cash equivalents.

Investments

The Company considers all highly liquid investments purchased with an original maturity date of ninety days or less at the date of purchase to be cash equivalents, and all investments purchased with an original maturity date of ninety days or more at the date of purchase and a maturity date of one year or less at the balance sheet date to be short-term investments. All other investments are classified as long-term. At December 31, 2013 and December 31, 2012, investments consisted of U.S. Treasury securities and debt securities of the U.S. government. All investments were classified as available for sale as of December 31, 2013 and 2012. See Note 5 for further discussion on investments.

Unrealized gains and temporary losses on investments are included in accumulated other comprehensive income (loss) as a separate component of stockholders' equity. Realized gains and losses, dividends, interest income and declines in value judged to be other-than-temporary credit losses are included in other income (expense). Any premium or discount arising at purchase is amortized and/or accreted to interest income.

METABOLIX, INC.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(In thousands, except for share and per share amounts)

2. Summary of Significant Accounting Policies (Continued)

Restricted Cash

The Company had restricted cash in the amount of $619 and $594 at December 31, 2013 and 2012, respectively. At December 31, 2013, restricted cash consisted of $494 held in connection with the lease agreement for the Company's Cambridge, Massachusetts facility and $125 held in connection with the Company's corporate credit card programs. At December 31, 2012, restricted cash consisted of $494 held in connection with the lease agreement for the Company's Cambridge, Massachusetts facility and $100 held in connection with the Company's corporate credit card program.

Foreign Currency Translation

Foreign denominated assets and liabilities of the Company's wholly-owned foreign subsidiaries are translated into U.S. dollars at the prevailing exchange rates in effect on the balance sheet date. Revenues and expenses are translated at average exchange rates prevailing during the period. Any resulting translation gains or losses are recorded in the accumulated other comprehensive income (loss) in the consolidated balance sheet.

Comprehensive Income (Loss)

Comprehensive income (loss) is comprised of net income (loss) and certain changes in stockholders' equity that are excluded from net income (loss). The Company includes unrealized gains and losses on marketable securities and foreign currency translation adjustments in other comprehensive income (loss).

Concentration of Credit Risk

Financial instruments that potentially subject the Company to concentrations of credit risk primarily consist of cash and cash equivalents and short-term investments. The Company primarily invests its excess cash and cash equivalents in money market funds, corporate debt, federal agency notes and U.S. Treasury notes. Investments are acquired in accordance with the Company's investment policy which establishes a concentration limit per issuer.

The Company provides credit to customers in the normal course of business. The Company performs ongoing credit evaluations of its customers' financial condition and limits the amount of credit extended when deemed necessary. At December 31, 2013, the Company's worldwide accounts and unbilled receivables include $552 or 46% from government grants and $528 or 44% from customer product sales. At December 31, 2013, the Company's REFABB grant with the Department of Energy represented 56% of billed and unbilled receivables from government grants and no single product customer represented more than 23% of total product receivables. At December 31, 2012, the Company's worldwide accounts and unbilled receivables included $561 or 46% from government grants and $535 or 44% from customer product sales. At December 31, 2012, one customer represented 41% of accounts receivable due from product sales.

Fair Value Measurements

The carrying amounts of the Company's financial instruments as of December 31, 2013 and 2012, which include cash equivalents, investments, accounts receivable, unbilled receivables, due from related

METABOLIX, INC.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(In thousands, except for share and per share amounts)

2. Summary of Significant Accounting Policies (Continued)

parties, accounts payable, and accrued expenses, approximate their fair values due to the short-term nature of these instruments. See Note 6 for further discussion on fair value measurements.

Segment Information

The accounting guidance for segment reporting establishes standards for reporting information on operating segments in annual financial statements. The Company operates in one segment, which is the business of developing and commercializing technologies for the production of polymers and chemicals in plants and in microbes. The Company's chief operating decision-maker does not manage any part of the Company separately, and the allocation of resources and assessment of performance are based on the Company's consolidated operating results. As of December 31, 2013 and 2012, less than 10% of the Company's combined total assets were located outside of the United States. In addition, the reported net income (loss) outside of the United States was less than 10% of the combined net income (loss) of the consolidated Company.

Inventory

The Company's adopted inventory policies are to state inventory at the lower of cost or market and to value inventory using the average cost method. The Company analyzes its inventory levels quarterly and writes down, to cost of product revenue, inventory it considers to be in excess of expected sales requirements, fails to meet commercial sales specifications or that has become obsolete.

Property and Equipment

Property and equipment are stated at cost less accumulated depreciation. Repairs and maintenance are charged to operations as incurred. Gains and losses on the disposition of equipment are recorded in net income or loss and the related cost and accumulated depreciation are removed from the respective accounts. Depreciation is computed using the straight-line method over the estimated useful lives as follows:

Asset Description	Estimated Useful Life
Equipment	2.5 - 3 years
Furniture and Fixtures	5
Software	3
Leasehold improvements	Shorter of useful life or term of lease

The Company accounts for operating lease incentive payments received from a lessor in accordance with the accounting standard on accounting for leases. The Company records incentive payments received from its landlords as deferred rent and amortizes these amounts as reductions to lease expense over the lease term.

Impairment of Long-Lived Assets

The Company accounts for the impairment and disposal of long-lived assets in accordance with accounting guidance on accounting for the impairment or disposal of long-lived assets. The guidance requires that long-lived assets, such as property and equipment be reviewed for impairment whenever

METABOLIX, INC.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(In thousands, except for share and per share amounts)

2. Summary of Significant Accounting Policies (Continued)

events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. The guidance further requires that companies recognize an impairment loss only if the carrying amount of a long-lived asset is not recoverable based on its undiscounted future cash flows and measure an impairment loss as the difference between the carrying amount and fair value of the asset.

Revenue Recognition

The Company recognizes revenue in accordance with accounting standards on revenue recognition. Principal sources of revenue are government research grants, product sales, license fees, royalty revenues and research and development payments that are primarily derived from collaborative agreements with other companies.

During March 2012, the Company initiated biopolymer product sales to customers for the first time. The Company's policy is to recognize revenue when evidence of an arrangement exists, title has passed or services have been rendered, the selling price is fixed or determinable and collectability is reasonably assured. Revenue from product sales to customers is recognized when all elements of the sale have been delivered. The Company's product return policy provides for discretion in accepting customer product returns during a period of sixty days after product delivery. Until sufficient experience is developed on which to base an estimate of product returns, the Company defers recognition of product revenue and related costs until the later of (i) the end of the sixty day period or (ii) when the customer payment has been received. The Company includes deferred cost of product revenue in inventory. As of December 31, 2013 and December 31, 2012, the Company's deferred product revenue and associated cost of product revenue are shown below:

	Year ended December 31,	
	2013	2012
Deferred product revenue	$ 537	$ 786
Deferred cost of product revenue	$ 476	$ 219

Fees to license the Company's proprietary and licensed technologies are recognized only after both the license period has commenced and the technology has been delivered. Royalty revenue is recognized when it becomes determinable and collectability is reasonably assured; otherwise the Company recognizes royalty revenue upon receipt of payment.

The Company follows authoritative guidance on revenue recognition for multiple-element arrangements entered into or materially modified on or after January 1, 2011. The guidance amends the criteria for separating and allocating consideration in a multiple-element arrangement by modifying the fair value requirements for revenue recognition and eliminating the use of the residual method. The fair value of deliverables under the arrangement may be derived using a "best estimate of selling price" if vendor-specific objective evidence and third-party evidence is not available. Deliverables under the arrangement will be separate units of accounting, provided (i) a delivered item has value to the customer on a standalone basis; and (ii) if the arrangement includes a general right of return relative to the delivered item, delivery or performance of the undelivered item is considered probable and substantially within the Company's control.

METABOLIX, INC.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(In thousands, except for share and per share amounts)

2. Summary of Significant Accounting Policies (Continued)

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.

Research and Development Expenses

All costs associated with internal research and development as well as research and development services conducted for others are expensed as incurred. Research and development expenses include direct costs for salaries, employee benefits, subcontractors, facility related expenses, depreciation and stock-based compensation related to employees and non-employees involved in the Company's research and development. Costs related to revenue-producing grants are also recorded as research and development expenses.

Selling, General, and Administrative Expenses

The Company's selling, general and administrative expense line item includes costs for salaries, employee benefits, facilities expenses, consulting fees, travel expenses, depreciation expenses, and office related expenses incurred to support the selling and administrative operations of the Company.

Intellectual Property Costs

The Company includes all costs associated with the prosecution and maintenance of patents within selling, general and administrative expenses in the consolidated statement of operations.

Stock-Based Compensation

The Company accounts for stock-based compensation costs in accordance with the accounting standards for stock-based compensation, which require that all share-based payments to employees and members of the Board of Directors, be recognized in the statement of operations based on their fair values. Compensation cost is based on the grant-date fair value of the award, adjusted for estimated forfeitures, and is recognized on a straight-line basis over the period during which the recipient is required to provide service in exchange for the award. See Note 14 for a description of the types of stock-based awards granted, the compensation expense related to such awards and detail of equity-based awards outstanding.

Basic and Diluted Net Loss per Share

Basic net income (loss) per share is computed by dividing net income (loss) by the weighted-average number of common shares outstanding. Common stock equivalents include stock options and warrants. Diluted net loss per share is computed by dividing net income by the weighted-average number of dilutive common shares outstanding during the period. Diluted shares outstanding is calculated by adding to the weighted shares outstanding any potential (unissued) shares of common stock from outstanding stock options and warrants based on the treasury stock method. In periods when a net loss is reported, all common stock equivalents are excluded from the calculation because

METABOLIX, INC.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(In thousands, except for share and per share amounts)

2. Summary of Significant Accounting Policies (Continued)

they would have an anti-dilutive effect, meaning the loss per share would be reduced. Therefore, in periods when a loss is reported, there is no difference in basic and dilutive loss per share.

Shares used to calculate diluted earnings per share for the three years ended December 31, 2013, 2012 and 2011, respectively, are shown below:

	Year Ended December 31,		
	2013	2012	2011
Numerator:			
Net income (loss)	$ (30,506)	$ 3,630	$ (38,785)
Denominator:			
Weighted average number of common shares outstanding	34,471,301	34,217,298	31,257,376
Effect of dilutive securities:			
Stock options	—	62,481	—
Dilutive potential common shares	—	62,481	—
Shares used in calculating diluted earnings per share	34,471,301	34,279,779	31,257,376

The number of shares of potentially dilutive common stock related to options and warrants that were excluded from the calculation of dilutive shares since the inclusion of such shares would be anti-dilutive for the years ended December 31, 2013, 2012 and 2011, respectively, are shown below:

	Year ended December 31,		
	2013	2012	2011
Options	6,201,429	5,579,042	3,858,685
Warrants	4,086	4,086	4,086
Total	6,205,515	5,583,128	3,862,771

Income Taxes

The Company follows the accounting guidance on accounting for income taxes which requires recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the financial statements or tax returns. Under this method, deferred tax assets and liabilities are determined based on the difference between the financial statement and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. A valuation allowance is provided to reduce the deferred tax asset to a level which, more likely than not, will be realized. See Note 15 for further discussion of income taxes.

Recent Accounting Standards Changes

In July 2013, the Financial Accounting Standards Board, or FASB, issued updated accounting guidance for the presentation of an unrecognized tax benefit when a net operating loss carryforward, a similar tax loss, or a tax credit carryforward exists. The updated guidance requires the netting of unrecognized tax benefits against a deferred tax asset for a loss or other carryforward that would apply

METABOLIX, INC.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(In thousands, except for share and per share amounts)

2. Summary of Significant Accounting Policies (Continued)

in settlement of the uncertain tax position. In addition, unrecognized tax benefits will be netted against all available same-jurisdiction loss or other tax carryforwards that would be utilized, rather than only against carryforwards that are created by unrecognized tax benefits. The update is effective prospectively for reporting periods beginning after December 15, 2013, and early adoption is permitted. The adoption of this guidance is not expected to have an impact on the Company's consolidated financial statements.

In February 2013, the FASB issued ASU No. 2013-02, Comprehensive Income (Topic 220): *Reporting of Amounts Reclassified out of Accumulated Other Comprehensive Income* (ASU 2013-02). This newly issued accounting standard requires an entity to provide information about the amounts reclassified out of accumulated other comprehensive income by component. In addition, an entity is required to present, either on the face of the statement where net income is presented or in the notes, significant amounts reclassified out of accumulated other comprehensive income by the respective line items of net income but only if the amount reclassified is required under U.S. GAAP to be reclassified to net income in its entirety in the same reporting period. For other amounts that are not required under U.S. GAAP to be reclassified in their entirety to net income, an entity is required to cross-reference to other disclosures required under U.S. GAAP that provide additional detail about those amounts. This ASU is effective for reporting periods beginning after December 15, 2012. The adoption of this standard did not have an impact on the Company's financial position or results of operations. Reclassification adjustments were insignificant for all periods presented.

Reclassifications

Certain amounts reported in the prior year financial statements have been reclassified for comparative purposes to conform with the presentation in the current year consolidated financial statements.

3. Significant Collaborations

The Company follows the accounting guidance for collaborative arrangements which require that certain transactions between collaborators be recorded in the income statement on either a gross or net basis, depending on the characteristics of the collaboration relationship, and provides for enhanced disclosure of collaborative relationships. The Company evaluates its collaborative agreements for proper income statement classification based on the nature of the underlying activity. If payments to and from collaborative partners are not within the scope of other authoritative accounting literature, the income statement classification for the payments is based on a reasonable, rational analogy to authoritative accounting literature that is applied in a consistent manner. During the three years ended December 31, 2013, the Company had one significant collaboration arrangement with Archer Daniels Midland Company whereby the Company received payments and applied revenue recognition accounting guidance to the payments received and recorded corresponding costs as operating expenses. This arrangement ended in February 2012.

We are not currently participating in any collaborative arrangements. Our historical strategy for collaborative arrangements has been to retain substantial participation in the future economic value of our technology while receiving current cash payments to offset research and development costs and

METABOLIX, INC.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(In thousands, except for share and per share amounts)

3. Significant Collaborations (Continued)

working capital needs. By their nature, our collaborative agreements have been complex, containing multiple elements covering a variety of present and future activities.

ADM Collaboration

From 2004 through 2011, the Company developed and began commercialization of its PHA biopolymers through a technology alliance and subsequent commercial alliance with ADM Polymer Corporation, a wholly-owned subsidiary of ADM, one of the largest agricultural processors in the world. The Commercial Alliance Agreement between Metabolix and ADM Polymer specified the terms and structure of the alliance. The agreement governed the activities and obligations of the parties to commercialize PHA biopolymers, which have been marketed under the brand names Mirel™ and Mvera™. These activities included the establishment of a joint venture company, Telles, LLC ("Telles"), to market and sell PHA biopolymers, the construction of a manufacturing facility capable of producing 110 million pounds of material annually (the "Commercial Manufacturing Facility"), the licensing of technology to Telles and to ADM, and the conducting of various research, development, manufacturing, sales and marketing, compounding and administrative services by the parties.

Telles was formed to: (i) serve as the commercial entity to establish and develop the commercial market for PHA biopolymers, and conduct the marketing and sales in accordance with the goals of the commercial alliance, (ii) assist in the coordination and integration of the manufacturing, compounding and marketing activities, and (iii) administer and account for financial matters on behalf of the parties. Metabolix and ADM each had a 50% ownership and voting interest in Telles.

Under the Commercial Alliance Agreement ADM was permitted, under limited circumstances, to terminate the alliance if a change in circumstances that was not reasonably within the control of ADM made the anticipated financial return from the project inadequate or too uncertain. The agreement provided that, upon termination by ADM due to a change in circumstances, Metabolix would be permitted to continue to produce and sell PHA biopolymers, and ADM would be required to perform manufacturing services for the Company for a period of time following the termination (subject to certain payment obligations to ADM). On January 9, 2012, ADM notified Metabolix that it was terminating the commercial alliance effective February 8, 2012. ADM had undertaken a strategic review of its business investments and activities and made the decision to focus resources outside of Telles. As the basis for the decision, ADM indicated to the Company that the projected financial returns from the alliance were too uncertain.

The Commercial Alliance Agreement with ADM limited the rights of both ADM and Metabolix to work with other parties or alone in developing or commercializing certain PHAs produced through fermentation. These exclusivity obligations ended upon termination of the alliance. Also, upon termination of the alliance, Metabolix intellectual property licenses to ADM Polymer and Telles ended, with Metabolix retaining all rights to its intellectual property. ADM retained its Commercial Manufacturing Facility located in Clinton, Iowa, previously used to produce PHA biopolymers for Telles.

Under the Technology Alliance and Option Agreement and Commercial Alliance Agreement, various payments were made to Metabolix by ADM as shown in the table below. All of these payments were recorded as deferred revenue on the Company's balance sheet and were expected to be

METABOLIX, INC.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(In thousands, except for share and per share amounts)

3. Significant Collaborations (Continued)

recognized on a straight line basis over a period of approximately ten years in which Metabolix would fulfill its contractual obligations during the Commercial Phase of the Commercial Alliance Agreement.

Upfront payment	$ 3,000
Milestone payments	2,000
Support payments	22,050
Cost sharing payments for pre-commercial manufacturing plant construction and operations	11,835
Total	$ 38,885

The Company had no further performance obligations in connection with the commercial alliance after its termination, and as a result, the entire $38,885 of deferred revenue was recognized by the Company during its fiscal quarter ended March 31, 2012.

After termination of the Commercial Alliance Agreement, the parties entered into a Settlement Agreement in which the parties agreed to specific terms related to the winding up and dissolution of Telles. Under this Settlement Agreement, Metabolix purchased certain assets of the joint venture for $2,982 including Telles's entire inventory, exclusive and perpetual rights to all of Telles's trademarks, and all product registrations, certifications and approvals for Telles's PHA biopolymers. Pursuant to the Settlement Agreement, ADM relinquished any claims with respect to certain co-funded equipment previously acquired by Metabolix and situated at locations other than the Clinton, Iowa Commercial Manufacturing Facility, and Metabolix and Telles waived any rights to post-termination manufacturing and fermentation services under the Commercial Alliance Agreement.

Pursuant to the Settlement Agreement, Telles paid to ADM an amount equal to the aggregate cash balances of Telles totaling $3,778 on the date of the Settlement Agreement, minus $100 retained by Telles to settle any remaining trade obligations. The remaining trade obligations of Telles at the date of execution of the Settlement Agreement did not exceed $100. In the event that ADM is required to repay to Telles or to pay to any creditor of Telles any amounts included in the $2,982 purchase price or the $3,678 distributed to ADM by Telles pursuant to the Settlement Agreement, Metabolix is obligated to reimburse ADM in an amount equal to 50% of such payments, provided that in no event would the amount to be so paid by Metabolix exceed the total of the $2,982 purchase price and the $3,678 Telles cash required to be so repaid or reimbursed by ADM. In February 2013, ADM notified the Company that Telles had been formally dissolved and that no third party creditor trade obligations had been paid. As a result, the Company believes that it is no longer contingently liable for any third party obligations stemming from its former ADM collaboration.

METABOLIX, INC.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(In thousands, except for share and per share amounts)

4. Inventory

The components of the Company's biopolymer inventories are as follows:

	Year ended December 31	
	2013	2012
Raw materials	$ 537	$ 640
Work-in-process	—	2
Finished goods	3,537	2,562
Total inventory	$ 4,074	$ 3,204

Included within finished goods at December 31, 2013 and December 31, 2012, are $476 and $257, respectively, of inventory that the Company has sold and shipped to customers for which the Company has not yet recognized revenue under its product revenue recognition policy. During the years ended December 31, 2013 and 2012, the Company recorded impairment charges to cost of product revenue of $818 and $138, respectively, for raw material and finished goods inventory that it determined was unlikely to be sold or converted to future sellable product based on quality, customer demand and current sales forecasts.

5. Investments

Investments consist of the following:

	Amortized Cost	Unrealized Gain	Unrealized (Loss)	Market Value
December 31, 2013				
Short-term investments				
Government-sponsored enterprises	$ 11,510	$ 1	$ —	$ 11,511
Total	$ 11,510	$ 1	$ —	$ 11,511
December 31, 2012				
Short-term investments				
Government sponsored enterprises	$ 29,189	$ 12	$ —	$ 29,201
Long-term investments				
Government-sponsored enterprises	2,507	1	—	2,508
Total	$ 31,696	$ 13	$ —	$ 31,709

The average maturity of our marketable securities available-for-sale as of December 31, 2013 and 2012 was two and four months, respectively.

6. Fair Value Measurements

The Company has certain financial assets recorded at fair value which have been classified as Level 1or 2 within the fair value hierarchy as described in the accounting standards for fair value measurements. Fair value is the price that would be received from the sale of an asset or the price paid

METABOLIX, INC.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(In thousands, except for share and per share amounts)

6. Fair Value Measurements (Continued)

to transfer a liability in an orderly transaction between independent market participants at the measurement date. Fair values determined by Level 1 inputs utilize observable data such as quoted prices in active markets for identical instruments. Fair values determined by Level 2 inputs utilize data points other than quoted prices in active markets that are observable either directly or indirectly. Fair values determined by Level 3 inputs utilize unobservable data points in which there is little or no market data, which require the reporting entity to develop its own assumptions. The fair value hierarchy level is determined by the lowest level of significant input.

The Company's financial assets classified as Level 2 have been initially valued at the transaction price and subsequently valued typically utilizing third party pricing services. Because the Company's investment portfolio may include securities that do not always trade on a daily basis, the pricing services use many observable market inputs to determine value including reportable trades, benchmark yields and benchmarking of like securities. The Company validates the prices provided by the third party pricing services by reviewing their pricing methods and obtaining market values from other pricing sources. After completing the validation procedures, the Company did not adjust or override any fair value measurements provided by these pricing services as of December 31, 2013 and 2012.

The tables below present information about the Company's assets that are measured at fair value on a recurring basis as of December 31, 2013 and December 31, 2012 and indicate the fair value hierarchy of the valuation techniques utilized to determine such fair value.

	Fair value measurements at reporting date using			
Description	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Balance as of December 31, 2013
Cash equivalents:				
Money market funds	$ 6,332	$ —	$ —	$ 6,332
Short-term investments:				
Government securities	—	11,511	—	11,511
Total	$ 6,332	$ 11,511	$ —	$ 17,843

	Fair value measurements at reporting date using			
Description	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Balance as of December 31, 2012
Cash equivalents:				
Money market funds	$ 11,157	$ —	$ —	$ 11,157
Government securities	—	2,015	—	2,015
Short-term investments:				
Government securities	—	29,201	—	29,201
Long-term investments:				
Government securities	—	2,508	—	2,508
	$ 11,157	$ 33,724	$ —	$ 44,881

METABOLIX, INC.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(In thousands, except for share and per share amounts)

7. Property and Equipment, Net

Property and equipment consisted of the following:

	Year ended December 31,	
	2013	2012
Equipment	$ 4,868	$ 5,151
Furniture and fixtures	227	227
Leasehold improvements	2,652	2,641
Software	381	381
Total property and equipment, at cost	8,128	8,400
Less: Accumulated depreciation	(7,335)	(7,042)
Property and equipment, net	$ 793	$ 1,358

Depreciation expense for the years ended December 31, 2013, 2012, and 2011 was $928, $1,298 and $1,507 respectively. The Company had no equipment under capital leases as of December 31, 2013 or 2012.

8. Accrued Expenses

Accrued expenses consist of the following:

	Year ended December 31,	
	2013	2012
Employee compensation and benefits	$ 2,595	$ 2,379
Commercial manufacturing	815	229
Professional services	578	301
Other	904	610
Total accrued expenses	$ 4,892	$ 3,519

9. Commitments and Contingencies

Leases

The Company rents its facilities under operating leases, which expire through May 2020. Rental payments under operating leases for the years ended December 31, 2013, 2012 and 2011 were $1,662, $1,814 and $1,808, respectively. The deferred rent liability recorded on the Company's balance sheet at December 31, 2013 and 2012 includes the unamortized balance of the landlord incentive payments and the cumulative difference between actual facility lease payments and lease expense recognized ratably

METABOLIX, INC.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(In thousands, except for share and per share amounts)

9. Commitments and Contingencies (Continued)

over the operating lease period. At December 31, 2013, the Company's future minimum payments required under operating leases are as follows:

Year ended December 31,	Minimum lease payment
2014	$ 1,449
2015	1,383
2016	1,419
2017	1,454
2018 and thereafter	3,576
Total	$ 9,281

Litigation

On March 7, 2012, a purported derivative lawsuit, Childs v. Kouba et al., Civil Action 12-0892 (the "Derivative Action"), was filed in Massachusetts Superior Court for Middlesex County, on behalf of the Company against members of the Company's Board of Directors for alleged breaches of their fiduciary duties. The parties transferred the case to the Business Litigation Session of Massachusetts Superior Court for Suffolk County, where it is now pending under Civil Action No. 13-4406-BLS2. The Derivative Action seeks compensatory damages in an unspecified amount, plaintiff's costs and attorneys' fees, and unspecified equitable or injunctive relief, based on a nearly identical set of alleged facts to those that were asserted in a purported shareholder class action, Hilary Coyne v. Metabolix, Inc., Richard P. Eno, and Joseph Hill, Civil Action 1:12-cv-10318 (the "Class Action"). On September 20, 2013, the United States District Court for the District of Massachusetts dismissed the Class Action in full and with prejudice. The defendants currently expect to file their motion to dismiss the Derivative Action on April 21, 2014.

The Company is currently unable to assess the probability of loss or estimate a range of potential loss, if any, associated with the Derivative Action because it is at an early stage.

From time to time, the Company may be subject to other legal proceedings and claims in the ordinary course of business. The Company is not currently aware of any such other proceedings or claims that it believes will have, individually or in the aggregate, a material adverse effect on the business, financial condition or the results of operations.

10. Related Party Transactions

Tepha Inc.

During 1999 and 2003, the Company entered into sublicense agreements with Tepha Inc. ("Tepha"), to sublicense technology to Tepha. The Company's directors, Matthew Strobeck and Anthony J. Sinskey, serve on the Board of Directors of Tepha. Under the agreement, the Company also receives royalties on net sales of licensed products and sublicensing revenues received by Tepha, subject to a minimum payment each year.

METABOLIX, INC.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(In thousands, except for share and per share amounts)

10. Related Party Transactions (Continued)

The Company engaged in various transactions with Tepha, and recognized license and royalty revenues of $149, $149 and $444, from Tepha for the years ended December 31, 2013, 2012, and 2011, respectively. The Company had outstanding receivable balances of $51 and $75 at December 31, 2013 and 2012, respectively.

11. Preferred Stock

The Company's certificate of incorporation, as amended and restated, authorizes it to issue up to 5,000,000 shares of $0.01 par value preferred stock. As of December 31, 2013 and 2012, no preferred stock was issued or outstanding.

12. Common Stock

Common Stock Issuances

During May 2011, the Company completed a public offering of 7,130,000 shares of its common stock at a price of $7.25 per share. Net proceeds were $49,333 after deducting underwriting discounts, commissions and offering costs of $2,360. The Company used the proceeds from the offering for working capital and other general corporate purposes.

Warrants

In connection with signing a lease agreement in 2004, the Company issued the landlord warrants to purchase 4,086 shares of common stock at an exercise price of $3.30 per share. The warrants expire ten years from the lease term commencement date. The fair value of these warrants is immaterial. At December 31, 2013, these warrants remained outstanding and exercisable.

13. Shareholder Rights Plan

On July 7, 2009, the Company adopted a Shareholder Rights Plan, the purpose of which is, among other things, to enhance the Board's ability to protect shareholder interests and to ensure that shareholders receive fair treatment in the event any coercive takeover attempt of the Company is made in the future. The Shareholder Rights Plan could make it more difficult for a third party to acquire, or could discourage a third party from acquiring, the Company or a large block of the Company's common stock.

In connection with the adoption of the Shareholder Rights Plan, the Board of Directors of the Company declared a dividend distribution of one preferred stock purchase right (a "Right") for each outstanding share of common stock to shareholders of record as of the close of business on July 8, 2009. The Rights currently are not exercisable and are attached to and trade with the outstanding shares of common stock. Under the Shareholder Rights Plan, the Rights become exercisable if a person becomes an "acquiring person" by acquiring 15% or more of the outstanding shares of common stock or if a person commences a tender offer that would result in that person owning 15% or more of the common stock. If a person becomes an "acquiring person," each holder of a Right (other than the acquiring person) would be entitled to purchase, at the then-current exercise price, such number of shares of the Company's preferred stock which are equivalent to shares of common stock having twice the exercise price of the Right. If the Company is acquired in a merger or other business combination

METABOLIX, INC.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(In thousands, except for share and per share amounts)

13. Shareholder Rights Plan (Continued)

transaction after any such event, each holder of a Right would then be entitled to purchase, at the then-current exercise price, shares of the acquiring company's common stock having a value of twice the exercise price of the Right.

On February 6, 2012, the Company entered into a letter agreement (the "Schuler Agreement") with Jack W. Schuler, Renate Schuler and the Schuler Family Foundation, a tax-exempt private operating foundation of which Jack W. Schuler and Renate Schuler serve as two of the three directors (collectively, the "Schuler Stockholders"). The Schuler Stockholders may be deemed to have aggregate beneficial ownership of up to 5,091,295 shares, or approximately 14.7%, of the Company's outstanding common stock, par value $0.01 per share (the "common stock").

Pursuant to the Schuler Agreement, the Schuler Stockholders have made certain representations and covenants regarding ownership, voting support arrangements, standstill arrangements and rights of first refusal. In exchange for these representations and covenants, the Company agreed to amend the Shareholder Rights Plan to allow the Schuler Stockholders, under certain circumstances, to increase their beneficial ownership up to 19.99% of the outstanding common stock without becoming Acquiring Persons (as defined in the Rights Agreement).

On February 6, 2012, contemporaneously with the execution of the Schuler Agreement, the Company amended the Shareholder Rights Plan to provide that, generally, so long as the Schuler Stockholders and their respective affiliates and associates do not at any time have Control Intent (as defined in the Shareholder Rights Plan), they may acquire additional shares of common stock without becoming acquiring persons under the Rights Plan, provided that their collective beneficial ownership does not at any time equal or exceed 20% of the then outstanding shares of common stock.

14. Stock-Based Compensation

The Company adopted a stock plan in 1995 (the "1995 Plan"), which provided for the granting of incentive stock options, nonqualified stock options, stock awards, and opportunities to make direct purchases of stock, to employees, officers, directors and consultants of the Company. In June 2005, the 1995 Plan was terminated and the Company adopted a new plan (the "2005 Plan"). No further grants or awards were subsequently made under the 1995 Plan. A total of 907,679 options were awarded from the 1995 Plan, and as of December 31, 2013, 29,192 of these options remain outstanding and eligible for future exercise and continue to be governed by the terms of the 1995 Plan.

The 2005 Plan provided for the granting of incentive stock options, nonqualified stock options, stock awards, and opportunities to make direct purchases of stock, to employees, officers, directors and consultants of the Company. In November 2006, the 2005 Plan was terminated and the Company adopted a new plan (the "2006 Plan"). No further grants or awards were subsequently made under the 2005 Plan. A total of 1,619,134 options were awarded from the 2005 Plan, and as of December 31, 2013, 231,229 of these options remain outstanding and eligible for future exercise and continue to be governed by the terms of the 2005 Plan.

The 2006 Plan provides for the granting of incentive stock options, nonqualified stock options, stock appreciation rights, deferred stock awards, restricted stock awards, unrestricted stock awards, cash-based awards and dividend equivalent rights. The 2006 Plan states that not more than 10,000,000 shares shall be issued under the plan. A total of 8,677,227 options have been awarded from the 2006 Plan and as of December 31, 2013, 5,941,008 of these options remain outstanding and eligible for future exercise.

METABOLIX, INC.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(In thousands, except for share and per share amounts)

14. Stock-Based Compensation (Continued)

Options granted under the 1995 Plan, the 2005 Plan and the 2006 Plan (the "Plans") generally vest ratably over periods of two to four years from the date of hire for new employees, or date of award for existing employees, or date of commencement of services with the Company for nonemployees, and generally expire ten years from the date of issuance. The Company's policy is to issue new shares upon the exercise of stock options.

The Company's Board of Directors granted on December 19, 2013, a stock option for the purchase of 1,150,000 shares of common stock to Joseph Shaulson in connection with his agreement to serve as a member of the Company's Board on that date and as an inducement for him to accept employment with the Company as its President and Chief Executive Officer starting in January 2014. This option was not granted under any of the Plans. The option has an exercise price equal to the fair market value of the Company's common stock at the date of grant, and it has a four-year vesting schedule in which 25%, 25% and 50% of the option vests on the 2nd, 3rd and 4th anniversary dates, respectively, of Mr. Shaulson commencing employment. The Company assessed the terms of this award and determined there was no possibility that it would have to settle this award in cash and, therefore, equity accounting was applied.

A summary of the activity related to the shares of common stock covered by outstanding options under the Plans follows:

	Number of Shares	Weighted Average Exercise Price	Remaining Contractual Term (in years)	Aggregate Intrinsic value
Balance at December 31, 2012	5,579,042	$ 6.68		
Granted	1,654,315	1.64		
Exercised	(7,550)	1.82		
Forfeited	(670,291)	2.11		
Expired	(354,087)	9.26		
Balance at December 31, 2013	6,201,429	5.68	6.09	$ —
Vested and expected to vest at December 31, 2013	6,009,973	5.79	6.04	—
Exercisable at December 31, 2013	3,913,834	7.49	5.18	—

The weighted average grant date fair value per share of options granted during fiscal years 2013, 2012, and 2011 was $1.14, $1.46 and $5.02, respectively. The total intrinsic value of options exercised was $2, $15 and $81 for the years ended December 31, 2013, 2012 and 2011, respectively.

METABOLIX, INC.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(In thousands, except for share and per share amounts)

14. Stock-Based Compensation (Continued)

A summary of information about the shares of common stock covered by outstanding and exercisable options under the Plans at December 31, 2013 follows:

	Stock Options Outstanding			Stock Options Exercisable	
Range of exercise prices	Number of shares	Weighted average remaining contractual life (in years)	Weighted average exercise price per share	Number of shares	Weighted average exercise price per share
$1.27 - 1.48	240,400	9.65	$ 1.41	15,610	$ 1.40
1.55 - 1.55	1,045,000	7.56	1.55	600,000	1.55
1.56 - 1.69	1,038,479	6.69	1.68	358,018	1.66
1.74 - 2.46	360,014	7.41	2.09	190,189	2.11
2.66 - 2.66	866,949	6.60	2.66	380,256	2.66
2.72 - 7.25	737,997	5.15	5.98	561,599	6.12
7.31 - 9.77	668,092	5.26	8.95	602,927	8.93
10.08 - 14.49	872,086	4.07	12.49	832,823	12.42
14.53 - 23.99	342,412	3.72	18.86	342,412	18.86
24.97 - 24.97	30,000	3.39	24.97	30,000	24.97
	6,201,429	6.09	5.68	3,913,834	7.49

Expense Information for Employee Stock Option Awards

The Company recognized stock-based compensation expense, related to employee stock option awards, including awards to members of the Board of Directors, of $3,193, $3,825 and $4,621 for the years ended December 31, 2013, 2012 and 2011, respectively. At December 31, 2013, there was approximately $3,544 of pre-tax stock-based compensation expense; net of estimated forfeitures, related to unvested awards not yet recognized which is expected to be recognized over a weighted average period of 2.02 years.

For the years ended December 31, 2013, 2012 and 2011, the Company determined the fair value of stock options using the Black-Scholes option pricing model with the following assumptions for option grants, respectively:

	Year Ended December 31,		
	2013	2012	2011
Expected dividend yield	—	—	—
Risk-free rate	0.71% - 2.05%	0.67% - 1.15%	0.88% - 2.38%
Expected option term (in years)	6.0 - 6.1	5.3 - 5.5	5.5 - 5.6
Volatility	84% - 85%	84% - 87%	77% - 80%

For the years ended December 31, 2013 and 2012, the Company determined its volatility assumption based on actual market price fluctuations experienced during its trading history. For the year ended December 31, 2011 expected volatility was estimated based on the Company's historical volatility benchmarked against the historical volatilities of a peer group of similar public companies.

METABOLIX, INC.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(In thousands, except for share and per share amounts)

14. Stock-Based Compensation (Continued)

Due to the Company's limited trading history prior to 2012, the Company believed that this approach provided additional information about future stock price movements when compared to analyzing the historical volatility of the Company on its own.

The risk-free interest rate used for each grant is equal to the U.S. Treasury yield curve in effect at the time of grant for instruments with a term similar to the expected life of the related option.

For the years ended December 31, 2013, 2012 and 2011, the expected term of the options is based upon evaluation of historical and expected future exercise behavior.

The stock price volatility and expected terms utilized in the calculation involve management's best estimates at that time, both of which impact the fair value of the option calculated under the Black-Scholes methodology and, ultimately, the expense that will be recognized over the life of the option. The accounting standard for stock-based compensation requires that the Company recognize compensation expense for only the portion of options that are expected to vest. Therefore, the Company has estimated expected forfeitures of stock options for the grants valued. In developing a forfeiture rate estimate, the Company considered its historical experience and actual forfeitures for the year. The Company will continue to evaluate its forfeiture rate as compared to the actual number of forfeitures in future periods to determine if adjustments to compensation expense may be required.

Expense Information for Non-employee Stock Option Awards

During the years ended December 31, 2011, the Company granted stock options to purchase 34,500 shares of common stock to non-employee consultants. No stock options were awarded to non-employees during the years ended December 31, 2013 and 2012, and all remaining non-employee awards were cancelled in early 2012 in connection with the Company's restructuring. Compensation expense related to non-employee options previously awarded were recognized over a period of four years and vested quarterly, contingent upon future services being provided by the consultants to the Company. The amount of non-employee stock compensation expense recorded by the Company for each of the two years ended December 31, 2012 was insignificant.

15. Income Taxes

The components of profit (loss) before provision for income taxes consist of the following:

	Year Ended December 31,		
	2013	2012	2011
Domestic	$ (28,200)	$ 3,502	$ (38,872)
Foreign	(2,295)	72	30
Profit (loss) before taxes	$ (30,495)	$ 3,574	$ (38,842)

METABOLIX, INC.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(In thousands, except for share and per share amounts)

15. Income Taxes (Continued)

The reported amount of income tax expense for the years differs from the amount that would result from applying domestic federal statutory tax rates to pretax losses primarily because of changes in valuation allowance. Significant components of the Company's net deferred tax assets are as follows:

	Year Ended December 31,	
	2013	2012
Deferred Tax Assets:		
Net operating loss carryforward	$ 81,699	$ 72,016
Capitalization of research and development expense	1,945	2,763
Credit carryforwards	8,118	7,024
Depreciation	2,403	2,603
Non-Qualified Stock Options	4,437	4,213
Other temporary differences	1,813	1,958
Total deferred tax assets.	100,415	90,577
Valuation allowance	(100,405)	(90,558)
Net deferred tax assets	10	19
Deferred Tax Liabilities:		
Other temporary differences	(10)	(19)
Net deferred tax loss	$ —	$ —

The items accounting for the difference between the income tax benefit computed at the federal statutory rate of 34% and the provision for income taxes were as follows:

	Year Ended December 31,		
	2013	2012	2011
Federal income tax at statutory federal rate	34.0%	34.0%	34.0%
State taxes	3.5%	7.8%	5.0%
Permanent differences	(1.9)%	19.6%	(2.4)%
Tax credits	2.7%	(10.5)%	2.4%
State rate change on deferred balances	(0.4)%	3.1%	1.4%
Expiration of net operating losses and credits	(5.8)%	49.2%	(1.6)%
Other	0.2%	9.8%	1.0%
Change in valuation allowance	(32.3)%	(113.0)%	(39.8)%
Total	0.00%	0.00%	0.00%

The Company follows the accounting guidance for income taxes including guidance, which addresses accounting for uncertainty in income taxes. This guidance prescribes a threshold for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. It also provides guidance on de-recognition, classification, interest and penalties, accounting in interim periods, disclosures and transitions. The Company had no amounts recorded for any unrecognized tax benefits as of December 31, 2013, 2012 and 2011.

METABOLIX, INC.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(In thousands, except for share and per share amounts)

15. Income Taxes (Continued)

The tax years 2010 through 2013 remain open to examination by major taxing jurisdictions to which the Company is subject, which are primarily in the U.S. Additionally, the Company can be audited for any loss year up to three years after the year in which the loss is utilized to offset taxable income. This would include loss years prior to 2010.

The Company's policy is to record estimated interest and penalties related to uncertain tax positions as income tax expense. As of December 31, 2013, 2012 and 2011, the Company had no accrued interest or penalties recorded related to uncertain tax positions.

At December 31, 2013, the Company had net operating loss carryforwards (NOLs) for federal and state income tax purposes of approximately $236,705 and $148,783, respectively. Included in the federal and state net operating loss carryforwards is approximately $19,213 of deductions related to the exercise of stock options subsequent to the adoption of amended accounting guidance related to stock-based compensation. This amount represents an excess tax benefit as defined under the amended accounting guidance related to stock-based compensation and has not been recorded as a deferred tax asset. The Company's existing federal and state net operating loss carryforwards begin to expire in 2019 and 2014, respectively. The Company also had available research and development credits for federal and state income tax purposes of approximately $5,281 and $3,920, respectively. These federal and state research and development credits will begin to expire in 2019 and 2016, respectively. As of December 31, 2013, the Company also had available investment tax credits for state income tax purposes of $86, which begin to expire in 2014. Management of the Company has evaluated the positive and negative evidence bearing upon the realizability of its deferred tax assets, which are comprised principally of net operating loss carryforwards and research and development credits. Under the applicable accounting standards, management has considered the Company's history of losses and concluded that it is more likely than not that the Company will not recognize the benefits of federal and state deferred tax assets. Accordingly, a full valuation allowance has been established against the deferred tax assets.

Utilization of the net operating loss and research and development credit carryforwards may be subject to a substantial annual limitation under Section 382 of the Internal Revenue Code of 1986 due to ownership change limitations that have occurred previously or that could occur in the future. These ownership changes may limit the amount of net operating loss and research and development credit carryforwards that can be utilized annually to offset future taxable income and tax, respectively. The Company completed an evaluation of its ownership changes through December 31, 2012 and has determined that its NOL and R&D credit carryforwards as of that date were not subject to an annual limitation under Section 382. The Company has not currently completed an evaluation of ownership changes through December 31, 2013. To the extent an ownership change occurs in the future, the net operating loss and credit carryforwards may be subject to limitation.

No additional provision has been made for U.S. income taxes related to the undistributed earnings of the wholly-owned subsidiaries of Metabolix, Inc. or for unrecognized deferred tax liabilities for temporary differences related to investments in subsidiaries. As such, earnings are expected to be permanently reinvested, the investments are essentially permanent in duration, or the Company has concluded that no additional tax liability will arise as a result of the distribution of such earnings. A liability could arise if amounts are distributed by such subsidiaries or if such subsidiaries are ultimately disposed. It is not practical to estimate the additional income taxes related to permanently reinvested

METABOLIX, INC.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(In thousands, except for share and per share amounts)

15. Income Taxes (Continued)

earnings or the basis differences related to investment in subsidiaries. Unremitted earnings at December 31, 2013 and December 31, 2012 approximated $273 and $252, respectively.

16. Employee Benefits

The Company maintains a 401(k) savings plan in which substantially all of its regular U.S. employees are eligible to participate. Participants may contribute up to 60% of their annual compensation to the plan, subject to eligibility requirements and annual IRS limitations. The Company's plan provides for a matching contribution in common stock of up to 4.5% of a participant's total compensation dependent upon the level of participant contributions made during the plan year. Pursuant to this plan, the Company issued 267,329, 179,336 and 68,558 shares of common stock during the twelve months ended December 31, 2013, 2012 and 2011, respectively, and recorded $397, $408 and $529, respectively, of related expense. Company contributions are fully vested upon issuance.

17. U.S. Department of Energy Grant

In 2011, the Company entered into a multi-year $6.0 million grant agreement entitled, *Renewable Enhanced Feedstocks for Advanced Biofuels and Bioproducts*, with the U.S. Department of Energy for the development of switchgrass. The Company will use the funds to perform research to enhance the yield of bio-based products, biopower, or fuels made from switchgrass to produce denser biomass and other products that can be further processed to make fuels such as butanol, chemicals such as propylene, and other materials to improve the economic competitiveness of future biorefineries. Continued receipt of grant proceeds is contingent upon the availability of government appropriated funds and the Company's ability to make substantial progress towards meeting the objectives of the award. The Company will recognize revenue from the grant over the term of the agreement as it incurs related research and development costs and provided it meets its prorated cost-sharing obligation of approximately $3.9 million. The Company may elect to retain rights to inventions it conceives or reduces to practice in the performance of work under the award, subject to certain rights of the U.S. Government.

During the years ended December 31, 2013, 2012 and 2011, the Company recognized $1,640, $1,578 and $515 in revenue related to this grant, respectively.

18. Restructuring

In connection with the termination of the Telles joint venture with ADM, in 2012, the Company restructured its biopolymers business and downsized its operations. The Company recognized $920 of restructuring charges during its fiscal year ended December 31, 2012 and there were no remaining balances accrued for restructuring charges at either December 31, 2012 or December 31, 2013.

METABOLIX, INC.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(In thousands, except for share and per share amounts)

19. Geographic Information

The geographic distribution of the Company's revenues and long-lived assets from continuing operations is summarized as follows:

	U.S.	Canada	Germany	Eliminations	Total
Year Ended December 31, 2013					
Net revenues to unaffiliated customers	$ 4,222	$ 273	$ 899	$ —	$ 5,394
Inter-geographic revenues	928	794	—	(1,722)	—
Net revenues	$ 5,150	$ 1,067	$ 899	$ (1,722)	$ 5,394
Identifiable long-lived assets	$ 752	$ 41	$ —	$ —	$ 793
Year Ended December 31, 2012					
Net revenues to unaffiliated customers	$ 42,136	$ 180	$ —	$ —	$ 42,316
Inter-geographic revenues	—	737	—	(737)	—
Net revenues	$ 42,136	$ 917	$ —	$ (737)	$ 42,316
Identifiable long-lived assets	$ 1,309	$ 49		$ —	$ 1,358
Year Ended December 31, 2011					
Net revenues to unaffiliated customers	$ 1,300	$ 125	$ —	$ —	$ 1,425
Inter-geographic revenues	—	859	—	(859)	—
Net revenues	$ 1,300	$ 984	$ —	$ (859)	$ 1,425
Identifiable long-lived assets	$ 2,185	$ 91	$ —	$ —	$ 2,276

Foreign revenue is based on the country in which the Company's legal subsidiary is domiciled. During 2013, revenue earned from the Company's REFABB grant with U.S. Department of Energy totaled $1,640 and represented 30% of total revenue for the year. Revenue earned from three additional customers represented 13%, 12% and 11%, respectively.

METABOLIX, INC.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(In thousands, except for share and per share amounts)

20. Summary of Quarterly Financial Data (unaudited)

The following tables summarize the unaudited quarterly financial data for the last two fiscal years.

	Quarter ended			
	March 31,	June 30,	September 30,	December 31,
2013				
Total revenues	$ 1,943	$ 1,706	$ 855	$ 890
Loss from operations	(6,785)	(7,857)	(7,242)	(8,618)
Net loss	(6,763)	(7,866)	(7,251)	(8,626)
Basic net loss per share	(0.20)	(0.23)	(0.21)	(0.24)
Diluted net loss per share	(0.20)	(0.23)	(0.21)	(0.24)
2012				
Total revenues	$ 39,322(1)	$ 923	$ 674	$ 1,397
Income (loss) from operations	28,823	(7,957)	(7,743)	(9,520)
Net income (loss)	28,840	(7,948)	(7,745)	(9,517)
Basic net income (loss) per share	0.84	(0.23)	(0.23)	(0.28)
Diluted net income (loss) per share	0.84	(0.23)	(0.23)	(0.28)

Full year amounts may not sum due to rounding.

(1) In 2012, the Company recognized $38,885 of deferred revenue associated with the termination of its commercial alliance with Archer Daniels Midland Company. See Note 3 to these financial statements for a more detailed explanation for the Company's recognition of this deferred revenue.

Exhibit 10.11

December 19, 2013

Joseph Shaulson
[Address]

Re: Employment Agreement

Dear Joe:

This letter agreement (the "**Agreement**") confirms the terms and conditions of your employment with Metabolix, Inc. (the "**Company**"). In consideration of the mutual promises and covenants contained in this Agreement, and for other good and valuable consideration, the receipt and sufficiency of which are hereby mutually acknowledged, we have agreed as follows:

1. Employment.

(a) General. The Company will employ you, and you will be employed by the Company, as President and Chief Executive Officer of the Company, reporting to the Company's Board of Directors (the "**Board**"), and you shall have the responsibilities, duties and authority commensurate with that position. You will also perform such other and/or different services for the Company as may be assigned to you from time to time consistent with your position as President and Chief Executive Officer. Effective upon the execution of this Agreement (and continuing after the Commencement Date (as defined below) while you are employed as the President and CEO), you shall serve as a Director on the Board; provided that you shall recuse yourself from any Board meetings concerning your employment, compensation or other employment terms. You agree that if your employment hereunder ends for any reason, you will immediately tender your resignation to the Company of all offices and positions with the Company, including with the Board, as of the date of your termination (the "**Termination Date**"). Your employment as President and Chief Executive Officer will be announced after the close of market on the Nasdaq on a date to be mutually agreed by you and the Company (the **"Announcement Date"**), subject to the requirements of applicable law.

(b) Devotion to Duties. While you are employed hereunder, you will use your best efforts, skills and abilities to perform faithfully all duties assigned to you pursuant to this Agreement and will devote your full business time and energies to the business and affairs of the Company. While you are employed hereunder, you will not undertake any other employment from any person or entity without the prior written consent of the Company. You may, however, without prior approval of the Company, serve as a member of the board of one other company or organization, with or without compensation, provided that such membership does not conflict with your obligations to the Company, and that you provide advance written notice to the Company before commencing such membership. You must seek advance approval from the Company in the event you wish to serve as a member of a board of additional companies or organizations.

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2. Start Date and Term. Your employment with the Company will begin on January 2, 2014, unless another date is mutually agreed upon by you and the Company (the "**Commencement Date**"). The Company hereby agrees to employ you, and you hereby accept employment with the Company, upon the terms set forth in this Agreement, for the period commencing on the Commencement Date and ending on the third anniversary of the Commencement Date (such period is the "**Initial Term**"), subject to earlier termination as provided in Section 4; provided, however, that at the end of such Initial Term and each anniversary date thereafter, the term of this Agreement will automatically be extended for an additional year unless, not less than sixty (60) days prior to the end of such Initial Term or one (1) year extension period, as the case may be, the Company or you shall have given written notice that it or you elects not to have the term extended. The term of this Agreement as extended and defined by this Section shall be referred to as the "**Agreement Term**."

3. Compensation.

(a) Base Salary. While you are employed hereunder, the Company will pay you a base salary at the rate of no less than $350,000 annually. The annual base salary in effect at any given time is referred to herein as the "**Base Salary.**" If the Company's audited financial statements for a completed fiscal year indicate that the Company achieved a revenue level of $25 million for such fiscal year, your Base Salary will be increased to $425,000, retroactive to the beginning of the fiscal year immediately following the completion of the fiscal year for which such revenue level was achieved. The retroactive payment shall be made as promptly as is administratively feasible after notice from you requesting such adjustment following the completion of such financial statements. Such retroactive amount shall be treated as part of your Base Salary retroactively for all purposes of this Agreement. The Company will pay such Base Salary on a semi-monthly basis in accordance with the Company's normal payroll practices and will deduct from each monthly salary payment all amounts required to be deducted or withheld under applicable law or under any employee benefit plan in which you participate.

(b) Bonus Opportunity.

(i) You will be eligible to receive an annual cash bonus in an amount of up to 140% of the Base Salary, based upon the Board's good faith assessment of your achievement of individual goals, of the Company's achievement of its goals, and in accordance with the Company's bonus programs. Individual and Company goals will be established, and modified, each year in good faith by you and the Board, and your target bonus opportunity will be no less than 70% of your Base Salary. Any bonus awarded under Section 3(b) shall be referred to as the "**Bonus**." The Bonus shall be calculated and paid no later than two and a half months following the close of the fiscal year to which such Bonus relates (including all amounts payable for such Bonus that relate to a retroactive Base Salary increase pursuant to paragraph 3(a) above). For any partial year of employment, your cash Bonus will be awarded on a pro rata basis. For the avoidance of doubt, nothing contained in this Agreement shall be construed to be a guarantee with respect to the amount of any Bonus.

(ii) With respect to the Bonus payable for the 2014 fiscal year, the Company will provide you with the opportunity to elect, before the amount of the Bonus is finalized, to convert the cash Bonus to a stock option by multiplying the Bonus's cash value by

four (4) and dividing the product by the fair market value per share of the Company's stock at the close of business on the date such Bonus amount is finalized (the "**Bonus Option Price**"). Any options awarded under this Section 3(b)(ii) shall vest in full on the one year anniversary of the grant date, shall have an exercise price equal to the Bonus Option Price and shall be granted under the Equity Documents (as defined below).

(c) Equity Compensation. The Metabolix, Inc. 2006 Stock Option and Incentive Plan, any other authorized stock plan in effect from time to time, and/or any agreements between you and the Company governing equity compensation (other than this Agreement but including any plans or agreements necessary to grant "inducement awards" to you in accordance with Nasdaq rules) that the Company may reasonably require consistent with the terms of this Agreement are referred to as the "**Equity Documents**." Pursuant and subject to the Equity Documents, the Company shall grant you:

(i) on the Announcement Date, an option to purchase 1,150,000 shares of Company stock (the "**Initial Option**"). The Initial Option shall have a ten year term and an exercise price equal to the closing price of the Company's stock on the Nasdaq on the Announcement Date. Twenty-five percent (25%) of the Initial Option will vest on the two year anniversary of the Commencement Date; 25% of the Initial Option will vest on the three year anniversary of the Commencement Date; and the remaining 50% of the Initial Option will vest on the four year anniversary of the Commencement Date. Further terms and conditions (not inconsistent herewith) of the Initial Option will be governed by the Equity Documents.

(ii) 600,000 performance shares of Company stock on the Commencement Date (the "**Performance Shares**"). Vesting of the Performance Shares will be triggered by (A) the Company's stock attaining certain price levels based on the average closing price of the Company's stock on Nasdaq (or such other exchange or trading market as may be applicable from time to time) over any ten consecutive trading day period (each a **"Stock Price Vesting Target"**) and/or (B) upon the good faith determination of the Board or its Executive Committee that the Company has secured firm and commercially reasonable contracts representing $25 million of annual revenue and has established the supply chain needed to perform under such contracts (the "**Revenue Vesting Target**"), as set forth in the table below. Once vesting of Performance Shares has been triggered by attaining a Stock Price Vesting Target or the Revenue Vesting Target, then 25%, 25% and 50% of the Performance Shares so triggered will vest on the first, second and third anniversaries, respectively, of the date the vesting of such Performance Shares was triggered. To the extent vesting of the Performance Shares has not been triggered by the second anniversary of the Commencement Date, they will be forfeited and such Performance Shares shall not vest under any circumstances.

Target	# of Performance Shares Vesting Triggered
$3 per share Stock Price Vesting Target	150,000
$4 per share Stock Price Vesting Target	150,000
$5 per share Stock Price Vesting Target	150,000

$6 per share Stock Price Vesting Target	150,000
Revenue Vesting Target	Vesting begins on 100% of Performance Shares that have not already been triggered by attainment of Stock Price Vesting Targets

(iii) On the Commencement Date, you shall purchase 250,000 shares of Company stock at a price 10% below the closing price of the Company's stock on the Announcement Date (the "**Additional Shares**"). You agree to (A) purchase the Additional Shares directly from the Company; and (B) complete the purchase within 30 days of the Commencement Date (such date, or the earlier date upon which you purchase all of the Additional Shares, the "**Additional Share Purchase Date**"). The Additional Shares will be subject to a holding period that will expire upon the earliest of: (I) one year after the Additional Share Purchase Date; (II) a Change of Control of the Company; (III) your resignation from employment for any reason; or (IV) the termination of your employment by the Company without Cause.

(iv) The Company shall use commercially reasonable efforts to register all equity awarded under this Agreement (except for the Additional Shares) on a Registration Statement on Form S-8 or otherwise.

(d) Vacation. You will be entitled to 4 weeks of paid vacation and paid holidays, accrued and used in accordance with the Company's policies as in effect from time to time. All vacation days will be taken at times mutually agreed by you and the Company and will be subject to the business needs of the Company, but with reasonable deference to your vacation plans.

(e) Fringe Benefits. You will be entitled to participate in employee benefit plans which the Company provides or may establish for the benefit of its senior executives generally (for example, group life, disability, medical, dental and other insurance, retirement, pension, profit-sharing and similar plans) (collectively, the "**Fringe Benefits**"). Your eligibility to participate in the Fringe Benefits and receive benefits thereunder will be subject to the plan documents governing such Fringe Benefits. Nothing contained herein will require the Company to establish or maintain any Fringe Benefits.

(f) Temporary Living and Commuting Allowance. During your first 18 months of employment with the Company, in recognition of your anticipated additional costs for temporary living and commuting, the Company shall pay you $5,000 per month in addition to your Base Salary. Such additional payment shall be subject to tax withholdings and deductions to the same extent as Base Salary.

(g) Reimbursement of Certain Expenses. You shall be reimbursed for such reasonable and necessary business expenses incurred by you while you are employed by the Company, which are directly related to the furtherance of the Company's business. You must submit any request for reimbursement no later than ninety (90) days following the date that such

business expense is incurred in accordance with the Company's reimbursement policy regarding same and business expenses must be substantiated by appropriate receipts and documentation. If a business expense reimbursement is not exempt from Section 409A of the Code, any reimbursement in one calendar year shall not affect the amount that may be reimbursed in any other calendar year and a reimbursement (or right thereto) may not be exchanged or liquidated for another benefit or payment. Any business expense reimbursements subject to Section 409A of the Code shall be made no later than the end of the calendar year following the calendar year in which you incur such business expense.

4. Termination of the Term. The Term shall terminate upon the occurrence of any of the following:

(a) Termination of the Agreement Term. The Agreement shall terminate, upon no less than ninety (90) days' prior written notice, at the expiration of the Agreement Term as set forth in Section 2. If the Company chooses not to renew the Agreement Term and your employment terminates upon or promptly after the expiration of the Agreement Term due to such non-renewal, then regardless of such termination and regardless of any terms of any Equity Documents to the contrary: (i) the vesting of all unvested equity granted to you under the Equity Documents pursuant to this Agreement shall continue as scheduled and (ii) the exercise period for all equity granted to you pursuant to this Agreement shall be extended to the later of the one-year anniversary of the expiration of the Agreement Term and the one-year anniversary of the applicable vesting date of such equity (but in no event later than the expiration date of such equity award); provided, however, that you execute a release of claims in the form of Exhibit A (the "**Release**") within thirty (30) days of the Termination Date and you do not revoke such Release.

(b) Termination for Cause. The Agreement shall terminate, at the election of the Company, for Cause upon written notice by the Company to you. For the purposes of this Section, "**Cause**" for termination shall be limited to the following:

(i) willful and continued failure to substantially perform your material duties;

(ii) willful and continued failure to substantially comply with the lawful and reasonable directives of the Board consistent with the terms of this Agreement;

(iii) willful and continued failure to substantially comply with any material Company policy, which non-compliance is substantially and demonstrably injurious to the Company;

(iv) willful gross misconduct that is substantially and demonstrably injurious to the Company;

(v) willful misconduct in the course of your employment that is a felony or fraud; or

(vi) willful and prolonged unexcused absence from work (other than by reason of disability due to physical or mental illness).

No act or failure to act on your part shall be considered "willful" unless done or omitted not in good faith and without reasonable belief that the action or omission was in the best interests of the Company or not opposed to the interests of the Company. Further notwithstanding the foregoing, the Company shall not have "Cause" under clauses (i), (ii) or (v) above unless (A) the Company notifies you of the condition giving rise to Cause within ninety (90) days of the occurrence of such condition and (B) the condition continues more than thirty (30) days following such written notice. For the avoidance of doubt, termination for "Cause" will result in the loss of all of your unvested equity (except as specifically provided in Section 3(c)(iii)).

(c) Termination by the Company without Cause. This Agreement shall terminate at the election of the Company without Cause at any time upon 30 days' prior written notice by the Company to you. The Company may accelerate such termination provided that it pays your Base Salary plus an additional 70% of your Base Salary with respect to any reduction of such notice period.

(d) Death or Disability. The Agreement shall terminate upon your death or disability. If you shall be disabled so as to be unable to perform the essential functions of your position under this Agreement with or without reasonable accommodation, the Board may remove you from any responsibilities during the period of such disability, and such removal shall not trigger a Good Reason termination as provided herein. Notwithstanding any such removal, you shall continue to receive your Base Salary (less any disability pay or sick pay benefits to which you may be entitled under the Company's policies), Bonus and benefits under this Agreement (except to the extent that you may be ineligible for one or more such benefits under applicable plan terms) for a period of six months, and your employment may be terminated by the Company at any time thereafter provided you continue to remain disabled at such time and you are eligible to receive benefits under the long-term disability plan in place for senior executives of the Company. A termination pursuant to this Section 4(d) shall not be considered to be a "termination without Cause." Upon a termination pursuant to this Section 4(d), regardless of such termination and regardless of any terms of any Equity Documents to the contrary, the exercise period for all equity granted to you pursuant to this Agreement or otherwise shall be extended to the later of the one-year anniversary of the Termination Date or the one-year anniversary of the applicable vesting date (but in no event later than the expiration date of such equity award). Nothing in this Section 4(d) shall be construed to waive your rights, if any, under existing law including, without limitation, the Family and Medical Leave Act of 1993, 29 U.S.C. §2601 *et seq*. and the Americans with Disabilities Act, 42 U.S.C. §12101 *et seq*.

Notwithstanding the foregoing, if and only to the extent that your disability is a trigger for the payment of deferred compensation, as defined in Section 409A of the Code, "**disability**" shall have the meaning set forth in Section 409A(a)(2)(C) of the Code.

(e) Termination by You. You may terminate this Agreement at your election upon not less than 30 days' prior written notice to the Company. The Company may accelerate such termination provided that it pays your Base Salary plus an additional 70% of your Base Salary with respect to any reduction of such notice period. Any such acceleration shall not result in converting such a termination by you into a termination without Cause.

(f) Definition of Good Reason. You shall have "Good Reason" to terminate your employment after the occurrence of any of the following without your written consent: (i) a diminution in your base compensation or target Bonus percentage (provided, however, that the foregoing shall not be construed to mean that a reduction of a Bonus award as compared with an award in an earlier year would constitute Good Reason); (ii) a diminution in your authority, duties or responsibilities (other than immaterial changes that are ministerial or administrative in nature); (iii) failure by the Company to continue your participation in its benefit and equity compensation plans at a level commensurate with your position as President and Chief Executive Officer (it being understood that further equity grants during the Initial Term shall be at the sole discretion of the Board); (iv) a change of at least thirty-five (35) miles in the geographic location at which you must perform your services; or (v) a material breach of this Agreement by the Company. Further notwithstanding the foregoing, you shall not have "Good Reason" under clauses (i)-(v) above unless (A) you notify the Company of the condition giving rise to your resignation within ninety (90) days of the occurrence of such condition; (B) the condition continues more than thirty (30) days following your written notice; and (C) your resignation is effective within one hundred eighty (180) days following the occurrence of such condition.

5. Effect of Termination.

(a) In the event (i) you are terminated for Cause; (ii) you are terminated for death or Disability; or (iii) you voluntarily resign (other than for Good Reason), unless otherwise specifically provided herein, you, or your estate, shall be eligible only to receive (i) the portion of your Base Salary as has accrued prior to the effectiveness of such termination and has not yet been paid, (ii) an amount equal to the value of your accrued unused vacation days, and (iii) reimbursement for expenses properly incurred by you on behalf of the Company prior to such termination if such expenses are properly documented in accordance with Company policy and practice and submitted for reimbursement within 30 days of the Termination Date (collectively, the "**Accrued Obligations**"). Such amounts will be paid promptly after the Termination Date in accordance with applicable law but in no event more than 14 days after the Termination Date. In the event your employment is terminated as a result of your death or disability, the vesting of all unvested equity granted to you under the Equity Documents or otherwise, either pursuant to this Agreement or otherwise, shall continue as scheduled regardless of such termination and regardless of any terms of any Equity Documents to the contrary.

(b) In the event (i) you are terminated without Cause; or (ii) you resign for Good Reason, in addition to the Accrued Obligations, and contingent on your executing a Release within thirty (30) days after the Termination Date, and you do not revoke the Release, you shall be entitled, in addition to the Accrued Obligations, to receive payments at the rate of 1.7 times your Base Salary in effect on the Termination Date (representing your Base Salary plus target Bonus, together, the "**Severance Pay**"), which the Company shall pay to you in substantially equal installments in accordance with the Company's payroll practice (subject to the penultimate sentence of this Section 5(b)) until the date 12 months following the Termination Date; provided that the Company may cease such payments effective on any earlier date when (I) you are judicially determined to have violated any restrictive covenant in the Employee Noncompetition, Confidentiality and Inventions Agreement; or (II) you accept comparable employment with another employer. For purposes of clause I, a "**judicial determination**" shall include without limitation the issuance of a preliminary injunction temporarily enforcing a

restrictive covenant, in whole or in part, in connection with a dispute concerning whether you violated any such restrictive covenant; provided that any severance or other payments or vesting withheld are restored in the event that a permanent injunction is not issued in connection with such dispute prior to the termination of such proceeding. For purposes of clause II, "**comparable employment**" means a chief executive officer position with a base salary and bonus target at least equivalent in the aggregate to your Base Salary and Bonus target as of the Termination Date. The first payment of the Severance Pay will be made on the first regular payroll date of the Company that occurs following the expiration of 37 days following the Termination Date, which payment shall include all amounts which would have been paid in the 37 days following the Termination Date on the Company's regular payroll schedule if the Release had not been required. Also, subject to your timely execution and the effectiveness of the Release, in the event of a termination without "Cause" or for "Good Reason," then regardless of such termination and regardless of any terms of any Equity Documents to the contrary: (i) the vesting of all unvested equity granted to you under the Equity Documents or otherwise, either pursuant to this Agreement or otherwise, shall continue as scheduled and (ii) the exercise period for all equity granted to you pursuant to this Agreement or otherwise shall be extended to the later of the one-year anniversary of the Termination Date and the one-year anniversary of the applicable vesting date of such equity (but in no event later than the expiration date of such equity award).

(c) Survival. The provisions of this Agreement shall survive the termination of this Agreement and/or the termination of your employment to the extent necessary to effectuate the terms contained herein.

(d) Additional Benefits in Connection With a Change of Control. In the event of a Change of Control, all outstanding unvested equity granted to you under the Equity Documents or otherwise, either pursuant to this Agreement or otherwise shall immediately become fully vested and exercisable. In the event of a Potential Change of Control, this Agreement shall be extended automatically until the later of the 18-month anniversary of the Potential Change of Control or, if applicable, the 18-month anniversary of the resulting Change of Control. In the event that your employment is terminated by the Company without Cause or by you for Good Reason within 6 months preceding a Change of Control or within 18 months immediately following a Change of Control, then, in addition to the Accrued Obligations, the following terms shall apply in place of Section 5(b): the Company shall pay you a lump sum in cash in an amount equal to two times the sum of (A) your then-current Base Salary (or your Base Salary in effect immediately prior to the Change of Control, if higher) plus (B) either the average of the Bonuses received by you (if any) for the two immediately preceding fiscal years, or, if your second annual Bonus has not yet been determined, your target bonus of 70% of your then-current Base Salary. The lump sum shall be paid within 10 business days of your termination (except in the case of termination preceding a Change of Control, in which case payment shall be made within 10 business days after the Change of Control, and such amount shall be reduced by any amounts previously paid under Section 5(b)).

(e) Section 280G. The payments, benefits and vesting, if any, to which you are entitled under Section 5 (and all other payments, benefits and vesting to which you may be entitled) shall be provided without regard to whether the deductibility of such payments, benefits and vesting would be limited or precluded by Section 280G of the Code ("Section 280G") and

without regard to whether such payments (or any other payment, benefits and vesting) would subject you to the federal excise tax levied on certain "excess parachute payments" under Section 4999 of the Code (the "**Excise Tax**"). If any portion of the payments, benefits and vesting to or for your benefit (including, but not limited to, payments, benefits and vesting under this Agreement but determined without regard to this paragraph) constitutes an "excess parachute payment" within the meaning of Section 280G (the aggregate of such payments being hereinafter referred to as the "**Excess Parachute Payments**"), the Company shall promptly pay to the relevant taxing authority as withholding taxes at such time or times when each payment of Excise Tax is due, an additional amount (the "**gross-up payment**") that after reduction for all taxes (including but not limited to the Excise Tax) with respect to such gross-up payment equals the Excise Tax with respect to the Excess Parachute Payments; provided, that to the extent any gross-up payment would be considered "deferred compensation" for purposes of Section 409A of the Code, the manner and time of payment, and the provisions of this Section 5(e), shall be adjusted to the extent necessary (but only to the extent necessary) to comply with the requirements of Section 409A with respect to such payment so that the payment does not give rise to the interest or additional tax amounts described at Section 409A(a) (l)(B) or Section 409A(b)(4) of the Code (the "**Section 409A penalties**"); and further provided, that if, notwithstanding the immediately preceding proviso, the gross-up payment cannot be made to conform to the requirements of Section 409A of the Code, the amount of the gross-up payment shall be determined without regard to any gross-up for the Section 409A penalties. The determination as to whether your payments, benefits and vesting include Excess Parachute Payments and, if so, the amount of such, the amount of any Excise Tax owed with respect thereto, and the amount of any gross-up payment shall be made at the Company's expense by such certified public accounting firm as the Board may designate prior to a Change of Control (the "**accounting firm**"). Notwithstanding the foregoing, if the Internal

Revenue Service shall assert an Excise Tax liability that is higher than the Excise Tax (if any) determined by the accounting firm, the Company shall promptly augment the gross-up payment to address such higher Excise Tax liability. Notwithstanding anything in this section to the contrary, the maximum amount of the gross-up payment, including any gross-up for Section 409A penalties, shall not exceed $500,000.

(f) "Change of Control". As used herein, a "**Change of Control**" shall mean (i) the sale, in one transaction or series of related transactions (including one or more stock sales, mergers, business combinations, recapitalizations, consolidations, reorganizations, restructurings or similar transactions), of all or substantially all of the consolidated assets of the Company and its subsidiaries to any person or group (including any such transaction in which the stockholders of the Company immediately prior to such transaction own less than 50% of the resulting company resulting from such transaction); (ii) any person or group acquiring beneficial ownership of at least 50% of the aggregate voting power of all outstanding voting securities of the Company or its successor or (iii) persons who, as of the date hereof, constituted the Company's Board of Directors (the "Incumbent Board") cease to constitute at least a majority of the Board of Directors, provided that any person becoming a director of the Company subsequent to the date hereof whose election was approved by a majority of the directors then in office shall, for purposes of this definition, be considered a member of the Incumbent Board. As used herein, a **"Potential Change of Control"** means (i) any agreement entered into by the Company which if consummated would result in Change of Control, or (ii) the announcement by

any person or group of its intention to take actions which if consummated would constitute a Change of Control.

(g) Separation from Service. Notwithstanding anything set forth in Sections 4 and 5 of this Agreement, a termination of employment shall be deemed not to have occurred until such time as you incur a "separation from service" with the Company in accordance with Section 409A(a)(2)(A)(i) of the Code and the applicable provisions of Treasury Regulation Section 1.409A-1(h).

(h) Section 409A.

(i) Anything in this Agreement to the contrary notwithstanding, if at the time of your "separation from service," the Company determines that the you are a 'specified employee' within the meaning of Section 409A (a)(2)(B)(i) of the Code, then to the extent any payment or benefit that you become entitled to under this Agreement on account of your separation from service would be considered deferred compensation subject to the 20 percent additional tax imposed pursuant to Section 409A(a) of the Code as a result of the application of Section 409A(a)(2)(B)(i) of the Code, such payment shall not be payable and such benefit shall not be provided until the date that is the earlier of (A) six months and one day after your separation from service, or (B) your death. If any such delayed cash payment is otherwise payable on an installment basis, the first payment shall include a catch-up payment covering amounts that would otherwise have been paid during the six-month period but for the application of this provision, and the balance of the installments shall be payable in accordance with their original schedule.

(ii) Solely for purposes of Section 409A of the Code, each installment payment described in Section 5 is considered a separate payment.

(i) No Mitigation or Setoff. You shall not be required to mitigate the amount of any payments to you under this Section by seeking other employment or otherwise, nor shall any compensation received by you reduce any such payments, except to the extent expressly provided in this Agreement. No payment to you under this Section shall be subject to set-off by the Company for any claim the Company may have against you.

6. Noncompetition, Confidentiality and Inventions Agreement. As a condition of your employment with the Company, you will execute an Employee Noncompetition, Confidentiality and Inventions Agreement in the form attached hereto.

7. Disclosure to Future Employers. You will provide, and the Company, in its discretion, may similarly provide, a copy of the covenants contained in the Employee Noncompetition, Confidentiality and Inventions Agreement to any business or enterprise which you may, directly or indirectly, own, manage, operate, finance, join, control or in which you may participate in the ownership, management, operation, financing, or control, or with which you may be connected as an officer, director, employee, partner, principal, agent, representative, consultant or otherwise.

8. Nondisparagement. During and after your employment with the Company, you agree not to make any intentionally disparaging public statements concerning the Company or

any of its affiliates or current or former officers or directors; provided that no statement that you make in the good faith course of performance of your duties and responsibilities shall be considered a breach of this Section 8. In addition, nothing in this Agreement shall in any way limit your ability to testify truthfully in any legal proceeding or respond truthfully to any statement made by the Company or any of its affiliates or current or former officers or directors.

9. Representations. You hereby represent and warrant to the Company that you understand this Agreement, that you enter into this Agreement voluntarily and that your employment under this Agreement will not conflict with any legal duty owed by you to any other party.

10. General.

(a) Notices. All notices, requests, consents and other communications hereunder which are required to be provided, or which the sender elects to provide, in writing, will be addressed to the receiving party's address set forth above or to such other address as a party may designate by notice hereunder, and will be either (i) delivered by hand, (ii) sent by overnight courier, or (iii) sent by registered or certified mail, return receipt requested, postage prepaid. All notices, requests, consents and other communications hereunder will be deemed to have been given either (i) if by hand, at the time of the delivery thereof to the receiving party at the address of such party set forth above, (ii) if sent by overnight courier, on the next business day following the day such notice is delivered to the courier service, or (iii) if sent by registered or certified mail, on the 5th business day following the day such mailing is made.

(b) Entire Agreement. This Agreement, together with the Equity Documents and the Employee Noncompetition, Confidentiality and Inventions Agreement, embodies the entire agreement and understanding between the parties hereto with respect to the subject matter hereof and supersedes all prior oral or written agreements and understandings relating to the subject matter hereof. No statement, representation, warranty, covenant or agreement of any kind not expressly set forth in this Agreement will affect, or be used to interpret, change or restrict, the express terms and provisions of this Agreement. In the event of any inconsistency between this Agreement and the Equity Documents or the Employee Noncompetition, Confidentiality and Inventions Agreement, the terms of this Agreement shall prevail.

(c) Modifications and Amendments. The terms and provisions of this Agreement may be modified or amended only by written agreement executed by the parties hereto, which expressly states that it is an amendment to or modification of this Agreement.

(d) Waivers and Consents. The terms and provisions of this Agreement may be waived, or consent for the departure therefrom granted, only by written document executed by the party entitled to the benefits of such terms or provisions. No such waiver or consent will be deemed to be or will constitute a waiver or consent with respect to any other terms or provisions of this Agreement, whether or not similar. Each such waiver or consent will be effective only in the specific instance and for the purpose for which it was given, and will not constitute a continuing waiver or consent.

(e) Assignment. (i) The Company shall cause its rights and obligations hereunder to be assumed by any person or entity that succeeds to all or substantially all of the Company's business and (ii) neither you nor the Company may assign its rights and obligations under this Agreement without the prior written consent of the other and any such attempted assignment by you or the Company without such prior written consent will be void; provided, however, in the event of your death, your rights, compensation and benefits under this Agreement shall inure to the benefit of your estate, such that, for example, stock issuable to you, and awards and payments payable to you, shall be issued and paid to your estate.

(f) Governing Law. This Agreement and the rights and obligations of the parties hereunder will be construed in accordance with and governed by the law of Massachusetts, without giving effect to the conflict of law principles thereof.

(g) Jurisdiction, Venue and Service of Process. Any legal action or proceeding with respect to this Agreement will be brought in the courts of Massachusetts or of the United States of America for the District of Massachusetts. By execution and delivery of this Agreement, each of the parties hereto accepts for itself and in respect of its property, generally and unconditionally, the exclusive jurisdiction of the aforesaid courts.

(h) Fees and Expenses. Each party shall bear his or its own costs and expenses (including legal fees) in connection with the execution of this Agreement. In the event that you are the prevailing party on one or more substantive claims that are based on an alleged breach of this Agreement in any legal action to enforce the terms of this Agreement, the Company shall reimburse you for your reasonable attorneys' fees and related reasonable expenses incurred with respect to any reasonably asserted claims in such legal action that are based on an alleged breach of this Agreement.

(i) Indemnification and Insurance. During the Term and thereafter, the Company shall indemnify you for any losses or claims against you relating to your services hereunder in accordance with the terms of the Company's Indemnification Agreement with its Directors, the form of which has been previously delivered to you, and as permitted by the Company's Certificate of Incorporation and By-laws in effect on the date hereof. During the Term and for a period of six years thereafter, the Company shall cover you on its directors and officers insurance policies to the same extent as other directors and officers are covered, if any such policies shall be in effect with respect to other directors and officers.

(j) Jury Waiver. You and the Company agree to waive trial by jury in connection with any action arising from or relating to this Agreement.

(k) Severability. The parties intend this Agreement to be enforced as written. However, if any portion or provision of this Agreement is to any extent declared illegal or unenforceable by a duly authorized court having jurisdiction, then the remainder of this Agreement, or the application of such portion or provision in circumstances other than those as to which it is so declared illegal or unenforceable, will not be affected thereby, and each portion and provision of this Agreement will be valid and enforceable to the fullest extent permitted by law.

(l) Headings and Captions. The headings and captions of the various subdivisions of this Agreement are for convenience of reference only and will in no way modify or affect the meaning or construction of any of the terms or provisions hereof.

(m) Acknowledgments. You recognize and agree that the enforcement of the Employee Noncompetition, Confidentiality and Inventions Agreement may be necessary to ensure the preservation, protection and continuity of the business, trade secrets and goodwill of the Company. You agree that, due to the nature of the Company's business, the restrictions set forth in the Employee Noncompetition, Confidentiality and Inventions Agreement are reasonable as to time, scope, and subject matter.

(n) Taxes. All payments required to be made by the Company to you under this Agreement shall be subject to the withholding of such amounts for taxes and other payroll deductions as the Company may be required to withhold pursuant to any applicable law or regulation. To the extent applicable, it is intended that this Agreement be exempt from, or comply with the provisions of Section 409A of the Code, and this Agreement shall be construed and applied in a manner consistent with this intent. In the event that any severance payments or benefits hereunder are determined by the Company to be in the nature of nonqualified deferred compensation payments, you and the Company hereby agree to take such actions as may be mutually agreed to ensure that such payments or benefits comply with the applicable provisions of Section 409A of the Code and the official guidance issued thereunder. Notwithstanding the foregoing, the Company does not guarantee the tax treatment or tax consequences associated with any payment or benefit arising under this Agreement.

(o) Counterparts. This Agreement may be executed in two or more counterparts, and by different parties hereto on separate counterparts, each of which will be deemed an original, but all of which together will constitute one and the same instrument.

[The remainder of this page is intentionally blank.]

If the foregoing accurately sets forth our agreement, please so indicate by signing and returning to us the enclosed this Agreement.

Very truly yours,

Metabolix, Inc.

By: /s/ Anthony J. Sinskey
Name: Anthony J. Sinskey
Title: Director & Chairman of the
Compensation Committee

Accepted and Approved:

/s/ Joseph Shaulson	December 19, 2013
Joseph Shaulson	Date

METABOLIX, INC.

EMPLOYEE NONCOMPETITION, CONFIDENTIALITY AND INVENTIONS AGREEMENT

The undersigned Joseph Shaulson, in consideration and as a condition of my employment and continued employment by Metabolix, Inc. (the "Company"), a Delaware corporation, does hereby agree with the Company as follows:

1. Noncompetition and Nonsolicitation. During my employment by the Company and for a period of twelve months thereafter, I will not directly or indirectly alone or as a partner, joint venturer, consultant, officer, director, employee, agent, independent contractor or stockholder of any company or business organization, engage in any business activity which is in competition with the products or services actively being developed, manufactured, marketed, distributed, planned, or sold by the Company during the term of my employment with the Company, provided, however, that a passive investment representing ownership by me of less than 3% of the outstanding capital stock of any such company or business organization shall not be deemed, in and of itself, to be in violation of this Section 1.. During my employment by the Company and for a period of eighteen months thereafter, I will not directly or indirectly in any manner seek to solicit or induce any person employed or engaged by the Company to leave his or her employment or engagement with the Company or assist in the recruitment of any such person for such purpose. During my employment by the Company and for a period of twelve months thereafter, I will not directly or indirectly solicit the business of any customer of the Company (other than on behalf of the Company) in a manner intended to divert such customer to competitive products or services or purposely induce any customer, supplier, vendor, consultant or independent contractor of the Company to terminate or negatively alter his, her or its relationship with the Company.

2. Confidentiality. I will not at any time, whether during or after the termination of my employment, reveal to any person, association, company, entity or other organization any of the trade secrets or confidential information of the Company or of any third party to whom the Company is under an obligation of confidentiality (including but not limited to trade secrets or confidential information respecting inventions, products, research and development activities, designs, methods, know-how, techniques, processes, plans and proposals, marketing and selling, business plans, budgets and unpublished financial statements, licenses, prices and costs, suppliers and customers) except as may be required in the ordinary course of performing my duties as an employee of the Company or as required by law. Further, I shall not use any such information except as required in the performance of my duties for the Company.

Further, I agree that, during my employment I shall not make, use or permit to be used any notes, memoranda, drawings, specification, programs, data, lab results, lab notes, formulas, codes or other materials of any nature relating to any matter within the scope of the business of the Company or concerning any of its dealings or affairs otherwise than for the benefit of the Company. I further agree that I shall not, after the termination of my employment, use or permit to be used any such materials, it being agreed that all of the foregoing are and shall be

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confidential information or trade secrets of the Company and shall be and remain the sole and exclusive property of the Company, and immediately upon the termination of my employment I shall deliver all of the foregoing, and all copies thereof, to the Company.

Notwithstanding anything to the contrary in this Agreement, my contacts including those in my Rolodex, Outlook contacts list, or similar address book, shall not be considered confidential information or trade secrets subject to the protections of this Agreement and I may retain them following my termination of employment. Further, information which is generally known and used by persons with training and experience comparable to my own, which is common knowledge in the industry or otherwise legally in the public domain, which is otherwise provided or developed by third parties (and with respect to which the Company does not have an obligation of confidentiality) or which relates to my employment, compensation, equity participation or benefits with the Company shall not be considered confidential information or trade secrets subject to the protections of this Agreement.

3. Inventions and Intellectual Property. If at any time or times during my employment I (either alone or with others) make, conceive, discover, reduce to practice or become possessed of any Intellectual Property, as hereinafter defined, such Intellectual Property shall be the sole and absolute property of the Company, as works made for hire or otherwise, and I hereby assign to the Company all of my rights in such Intellectual Property. For purposes hereof, "Intellectual Property" shall mean any invention, modification, discovery, design, development, improvement, process, formula, code, data, technique, know-how, trade secret, work of authorship or intellectual property right whatsoever or any interest therein (whether or not patentable or registrable under copyright or similar statutes) that (a) relates to the field of metabolic engineering of polyhydroxyalkanoates or any other business of the Company or any of the products or services being developed, manufactured or sold by the Company or which may be useful in connection therewith, or (b) results from tasks assigned to me by the Company, or (c) results from the use of facilities owned, leased or contracted for by the Company.

I shall promptly disclose to the Company (or any persons designated by it) all such Intellectual Property and any information relating thereto. I shall also promptly disclose to the Company, and the Company hereby agrees to receive all such disclosures in confidence, any other invention, modification, discovery, design, development, improvement, process, formula, code, data, technique, know-how, trade secret, work of authorship or intellectual property right whatsoever or any interest therein (whether or not patentable or registrable under copyright or similar statutes) made, conceived, discovered, reduced to practice or possessed by me (either alone or with others) at any time or times during my employment, for the purposes of determining whether they constitute "Intellectual Property" as defined above.

During my employment and at any time thereafter I will, at the request and cost of the Company, sign, execute, make and do all such deeds, documents, acts and things as the Company and its duly authorized agents may reasonably require to apply for, obtain and vest in the name of the Company alone (or as the Company otherwise directs) and to defend, enforce and maintain any patents, patent applications, copyrights, or other analogous protection with respect to the Intellectual Property in any country throughout the world.

If the Company is unable, after reasonable effort, to secure my signature on any such application or other document relating to any Intellectual Property, whether because of my physical or mental incapacity or for any other reason whatsoever, I hereby irrevocably designate and appoint the Company

and its duly authorized officers and agents as my agent and attorney-in-fact, to act for and in my behalf and stead to execute and file any such application(s) or document(s) and to do all other lawfully permitted acts to further the prosecution and issuance of letters patent, copyright or other analogous protection thereon with the same legal force and effect as if executed by me.

4. Prior Inventions. I represent that the inventions identified in the pages, if any, attached hereto comprise all the inventions which I have made or conceived prior to my employment by the Company, which inventions are excluded from this Agreement. I understand that it is only necessary to list the title of such inventions and the purposes thereof, but not the details of the invention itself.

IF THERE ARE ANY SUCH INVENTIONS TO BE EXCLUDED, THE UNDERSIGNED SHOULD INITIAL HERE. OTHERWISE IT WILL BE DEEMED THAT THERE ARE NO SUCH EXCLUSIONS. .

The parties acknowledge that pages through attached hereto are the only pages attached in response to this Section 4.

5. No Conflict. Except as provided in the next paragraph of this Section 5, I represent that to the best of my knowledge my performance of the terms of this Agreement, and my performance of my duties as an employee of the Company, does not and will not breach any agreement to which I am bound, including without limitation any agreement to keep in confidence proprietary information acquired by me in confidence or in trust prior to my employment by the Company. I have not entered into, and I agree that I will not enter into, any agreement, either written or oral, in conflict herewith. During my employment by the Company, I will not willfully and improperly use or disclose any confidential information or trade secrets, if any, of any former employer or any other person to whom I have an obligation of confidentiality, and I will not bring onto the premises of the Company any unpublished documents or any property belonging to any former employer or any other person to whom I have an obligation of confidentiality unless consented to in writing by that former employer or person.

I have attached hereto a copy of each agreement, if any, which to the best of my knowledge presently affects my compliance with the terms of this Agreement. IF THERE ARE ANY SUCH AGREEMENTS, THE UNDERSIGNED SHOULD INITIAL HERE. OTHERWISE IT WILL BE DEEMED THAT THERE ARE NO SUCH EXCLUSIONS. .

The parties acknowledge that pages through attached hereto are the only pages attached in response to this Section 5.

6. Specific Performance. I agree that any breach of this Agreement by me will cause irreparable damage to the Company, and that in the event of such breach the Company shall have, in addition to any and all remedies of law, the right to an injunction, specific performance or other equitable relief to prevent the violation of my obligations hereunder.

7. No Employment Obligation. I understand that this Agreement does not create an obligation on the Company or any other person to continue my employment.

8. Amendments. Any amendment to or modification of this Agreement, and any waiver of any provision hereof, shall be in writing and shall be signed by the parties hereto. Any waiver by the Company of a breach of any provision of this Agreement shall not operate or be construed as a waiver of any subsequent breach hereof. In the event of any conflict between this Agreement (or any amendment or modification of this Agreement) and my employment agreement with the Company, the terms of my employment agreement with the Company shall apply.

9. Severability. I hereby agree that each provision herein shall be treated as a separate and independent clause, and the unenforceability of any one clause shall in no way impair the enforceability of any of the other clauses herein. Moreover, if any one or more of the provisions contained in this Agreement shall for any reason be held to be excessively broad as to scope, activity or subject so as to be unenforceable at law, such provision or provisions shall be construed by the appropriate judicial body by limiting and reducing it or them, so as to be enforceable to the maximum extent compatible with the applicable law as it shall then appear. I hereby further agree that the language of all parts of this Agreement shall in all cases be construed as a whole according to its fair meaning and not strictly for or against any of the parties. No claim of mine against the Company shall serve as a defense against the Company's enforcement of any provision of this Agreement.

10. Survival. Except as otherwise provided in Section 1, my obligations under this Agreement shall survive the termination of my employment, regardless of the manner of such termination, and shall be binding upon my heirs, executors, administrators and legal representatives.

11. Successors. The term "Company" shall include Metabolix, Inc., a Delaware corporation, and any of its subsidiaries, divisions, or affiliates. The Company shall have the right to assign this Agreement to its successors and assigns, and all covenants and agreements hereunder shall inure to the benefit of and be enforceable by such successors and assigns.

12. Governing Law. This Agreement shall be deemed to be made and entered into in the Commonwealth of Massachusetts, and shall in all respects be interpreted, enforced and governed under the internal and domestic laws of such Commonwealth without giving effect to the principles of conflict of law of such Commonwealth.

[signature page follows]

EXECUTED as of the 19th day of December, 2013.

/s/ Joseph Shaulson
Signature

Name: Joseph Shaulson

Address: _____

Accepted and Agreed:

METABOLIX, INC.

By: /s/ Anthony J. Sinskey
Name: Anthony J. Sinskey
Title: Director & Chairman of the Compensation Committee

NON-QUALIFIED STOCK OPTION AGREEMENT

METABOLIX, INC.

Metabolix, Inc. (the "Company") hereby grants to Joseph Shaulson (the "Optionee"), an option (this "Stock Option") to purchase on or prior to December 19, 2023 (the "Expiration Date") up to 1,150,000 shares (the "Option Shares") of Common Stock, par value $0.01 per share, of the Company (the "Stock"), at an exercise price equal to $1.33 per share (subject to appropriate adjustment in the event of any stock split, stock dividend, combination or other similar recapitalization with respect to the Stock), subject to the terms and conditions set forth herein. This Stock Option is not intended to be an "incentive stock option" under Section 422 of the Internal Revenue Code of 1986, as amended.

1. Defined Terms. The following terms shall be defined as set forth below:

(a) "Agreement Term" has the meaning ascribed to it in the Employment Agreement.

(b) "Disability" has the meaning ascribed to it in the Employment Agreement.

(c) "Cause" has the meaning ascribed to it in the Employment Agreement.

(d) "Change of Control" has the meaning ascribed to it in the Employment Agreement.

(e) "Committee" shall mean the compensation committee of the Board of Directors of the Company or a similar committee performing the functions of the compensation committee and which is comprised of not less than two non-employee directors who are independent.

(f) "Employment Agreement" shall mean the Employment Agreement dated as of December 19, 2013 by and between the Company and the Optionee.

(g) "Fair Market Value" of Stock on any given date means the fair market value of the Stock determined in good faith by the Committee; provided, however, that if the Stock is admitted to quotation on the National Association of Securities Dealers Automated Quotation System ("NASDAQ"), NASDAQ National System or a national securities exchange, the determination shall be made by reference to market quotations. If there are no market quotations for such date, the determination shall be made by reference to the last date preceding such date for which there are market quotations.

(h) "Good Reason" has the meaning ascribed to it in the Employment Agreement.

(i) "Termination Date" has the meaning ascribed to it in the Employment Agreement.

2. Exercisability Schedule. No portion of this Stock Option may be exercised until such portion shall have become exercisable. Except as set forth below, and subject to the discretion of the Committee to accelerate the exercisability schedule hereunder, this Stock Option shall vest and become exercisable with respect to the Option Shares as follows: twenty-five percent (25%) of the Option Shares shall vest and become exercisable on January 2, 2016, twenty-five percent (25%) of the Option Shares shall vest and become exercisable on January 2, 2017, and the remaining fifty percent (50%) of the Option Shares shall vest and become exercisable on January 2, 2018, provided that, except as otherwise set forth in Section 4 below, the Optionee remains an employee of the Company on the respective vesting date. In the

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event of a Change of Control, all outstanding unvested Option Shares shall immediately become fully vested and exercisable. Once exercisable, this Stock Option shall continue to be exercisable at any time or times prior to the close of business on the Expiration Date, subject to the provisions hereof.

3. Manner of Exercise.

(a) The Optionee may exercise this Stock Option only in the following manner: from time to time on or prior to the Expiration Date or earlier termination of this Stock Option as provided herein, the Optionee may give written notice to the Company of his or her election to purchase some or all of the Option Shares purchasable at the time of such notice. This notice shall specify the number of Option Shares to be purchased.

Payment of the exercise price for the Option Shares may be made by one or more of the following methods: (i) in cash, by certified or bank check or other instrument acceptable to the Committee; (ii) through the delivery (or attestation to the ownership) of shares of Stock that have been purchased by the Optionee on the open market or that are beneficially owned by the Optionee (including a portion of the Option Shares subject to the exercise) and are not then subject to any restrictions under any Company plan; (iii) at the discretion of the Committee, in accordance with a cashless exercise program established with a securities brokerage firm and approved by the Committee, provided that in the event the Optionee chooses to pay the option purchase price as so provided, the Optionee and the broker shall comply with such procedures and enter into such agreements of indemnity and other agreements as the Committee shall prescribe as a condition of such payment procedure; or (iv) a combination of (i), (ii) and (iii) above. Payment instruments will be received subject to collection.

The transfer to the Optionee on the records of the Company or of the transfer agent of the Option Shares will be contingent upon the Company's receipt of full payment for the Option Shares, as set forth above. In the event the Optionee chooses to pay the exercise price with beneficially-owned shares of Stock through the attestation method, the number of shares of Stock transferred to the Optionee upon such exercise of this Stock Option shall be net of the shares attested to. In the event that the Company establishes, for itself or using the services of a third party, an automated system for the exercise of Stock Options, such as a system using an internet website or interactive voice response, then the paperless exercise of Stock Options may be permitted through the use of such an automated system.

(b) The shares of Stock purchased upon exercise of this Stock Option shall be transferred to the Optionee on the records of the Company or of the transfer agent upon (i) compliance with the requirements hereof (including the satisfaction of any withholding taxes that the Company is obligated to withhold with respect to the Optionee) and (ii) receipt by the Company of the full exercise price for such shares of Stock. The Optionee shall not

be deemed to be the holder of, or to have any of the rights of a holder with respect to, any shares of Stock subject to this Stock Option unless this Stock Option shall have been exercised pursuant to the terms hereof.

(c) The minimum number of shares with respect to which this Stock Option may be exercised at any one time shall be 100 shares, unless the number of shares with respect to which this Stock Option is being exercised is the total number of shares subject to exercise under this Stock Option at the time.

(d) Notwithstanding any other provision hereof, no portion of this Stock Option shall be exercisable after the Expiration Date hereof.

4. Termination of Employment. If the Optionee's employment with the Company is terminated, the period within which to exercise this Stock Option may be subject to earlier termination as set forth below.

(a) Termination Due to Non-Renewal of Employment Agreement. If the Company chooses not to renew the Employment Agreement and the Optionee's employment terminates upon or promptly after the expiration of the Agreement Term due to such non-renewal, then regardless of such termination and regardless of any terms of this Stock Option to the contrary: (i) the vesting of all unvested Option Shares shall continue as scheduled and (ii) the exercise period for all Option Shares shall be extended to the later of the one-year anniversary of the expiration of the Agreement Term and the one-year anniversary of the applicable vesting date of the Option Shares (but in no event later than the Expiration Date); provided, however, that the Optionee executes a release of claims in accordance with the terms of the Employment Agreement and does not revoke such release of claims.

(b) Termination Due to Death or Disability. If the Optionee's employment terminates by reason of the Optionee's death or Disability, regardless of such termination and regardless of any terms of this Stock Option to the contrary, the (i) vesting of all unvested Options Shares shall continue as scheduled and (ii) the exercise period for the Option Shares shall be extended to the later of the one-year anniversary of the Termination Date or the one-year anniversary of the applicable vesting date (but in no event later than the Expiration Date.

(c) Termination Without Cause or for Good Reason. If the Optionee's employment is terminated by the Company without Cause or by the Optionee for Good Reason, then regardless of such termination and regardless of any terms of this Stock Option to the contrary, (i) the vesting of all unvested Option Shares shall continue as scheduled and (ii) the exercise period for all Option Shares shall be extended to the later of the one-year anniversary of the expiration of the Agreement Term and the one-year anniversary of the applicable vesting date of the Option Shares (but in no event later than the Expiration Date); provided, however, that the Optionee executes a release of claims in accordance with the terms of the Employment Agreement and does not revoke such release of claims.

(d) Termination for Cause. If the Optionee's employment terminates for Cause, any unvested portion of this Stock Option outstanding on such date shall terminate immediately and be of no further force and effect. Any vested portion of this Stock Option as of the date of termination may be exercised for a period of three months from the date of termination or until the Expiration Date, if earlier.

(e) Other Termination. If the Optionee's employment terminates for any reason other than as set forth above, any portion of this Stock Option outstanding on such date may be exercised, to the extent exercisable on the date of termination, for a period of three months from the date of termination or until the Expiration Date, if earlier. Any portion of this Stock Option that is not exercisable on the date of termination shall terminate immediately and be of no further force or effect.

5. Powers of the Committee. The Committee shall have the power and authority to (i) accelerate at any time the exercisability or vesting of all or any portion of this Stock Option and (ii) extend at any time the period in which this Stock Option may be exercised, but not beyond the Expiration Date.

6. Transferability. This Agreement is personal to the Optionee, is non-assignable and is not transferable in any manner, by operation of law or otherwise, other than by will or the laws of descent and distribution. This Stock Option is exercisable, during the Optionee's lifetime, only by the Optionee, and thereafter, only by the Optionee's legal representative or legatee.

7. Tax Withholding. The Optionee shall, not later than the date as of which the exercise of this Stock Option becomes a taxable event for Federal income tax purposes, pay to the Company or make arrangements satisfactory to the Committee for payment of any Federal, state, and local taxes required by law to be withheld on account of such taxable event. The Optionee may elect to have the minimum required tax withholding obligation satisfied, in whole or in part, by (i) authorizing the Company to withhold from shares of Stock to be issued, or (ii) transferring to the Company, a number of shares of Stock with an aggregate Fair Market Value that would satisfy the minimum withholding amount due. The Company and its Subsidiaries shall, to the extent permitted by law, have the right to deduct any such taxes from any payment of any kind otherwise due to the Optionee.

8. Data Privacy Consent. In order to administer this Stock Option and to implement or structure future equity grants, the Company, its subsidiaries and affiliates and certain agents thereof (together, the "Relevant Companies") may process any and all personal or professional data, including but not limited to Social Security or other identification number, home address and telephone number, date of birth and other information that is necessary or desirable for the administration of this Stock Option (the "Relevant Information"). By accepting this Stock Option, the Optionee (i) authorizes the Company to collect, process, register and transfer to the Relevant Companies all Relevant Information; (ii) waives any privacy rights the Optionee may have with respect to the Relevant Information; (iii) authorizes the Relevant Companies to store and transmit such information in electronic form; and (iv) authorizes the transfer of the Relevant Information to any jurisdiction in which the Relevant Companies consider appropriate. The Optionee shall have access to, and the right to change, the Relevant Information. Relevant Information will only be used in accordance with applicable law.

9. Integration. This Agreement and the Employment Agreement constitute the entire agreement between the parties with respect to this Stock Option and supersede all prior agreements and discussions between the parties concerning such subject matter. In the event of any inconsistency between this Agreement and the Employment Agreement, the terms of the Employment Agreement shall prevail.

10. No Obligation to Continue Employment. Neither the Company nor any Subsidiary is obligated by or as a result of this Agreement to continue the Optionee in employment and this Agreement shall not interfere in any way with the right of the Company or any Subsidiary to terminate the employment of the Optionee at any time.

11. Notices. Notices hereunder shall be mailed or delivered to the Company at its principal place of business and shall be mailed or delivered to the Optionee at the address on file with the Company or, in either case, at such other address as one party may subsequently furnish to the other party in writing.

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IN WITNESS WHEREOF, the parties hereto have executed this agreement effective as of December 19, 2013.

METABOLIX, INC.

By: /s/ Joseph D. Hill
Name: Joseph D. Hill
Title: CFO

ACCEPTED AND APPROVED:

/s/ Joseph Shaulson
Joseph Shaulson

RESTRICTED STOCK UNIT AWARD AGREEMENT
FOR COMPANY EMPLOYEES

METABOLIX, INC.

Name of Grantee: Joseph Shaulson

No. of Restricted Stock Units: 600,000

Grant Date: January 2, 2014

Metabolix, Inc. (the "Company") hereby grants an award of the number of Restricted Stock Units listed above (an "Award") to the Grantee named above. Each Restricted Stock Unit shall relate to one share of Common Stock, par value $0.01per share (the "Stock") of the Company (subject to appropriate adjustment in the event of any stock split, stock dividend, combination or other similar recapitalization with respect to the Stock).

1. Defined Terms. The following terms shall be defined as set forth below:

(a) "Agreement Term" has the meaning ascribed to it in the Employment Agreement.

(b) "Cause" has the meaning ascribed to it in the Employment Agreement.

(c) "Change of Control" has the meaning ascribed to it in the Employment Agreement.

(d) "Committee" shall mean the compensation committee of the Board of Directors of the Company or a similar committee performing the functions of the compensation committee and which is comprised of not less than two non-employee directors who are independent.

(e) "Employment Agreement" shall mean the Employment Agreement dated as of December 19, 2013 by and between the Company and the Grantee.

(f) "Fair Market Value" of Stock on any given date means the fair market value of the Stock determined in good faith by the Committee; provided, however, that if the Stock is admitted to quotation on the National Association of Securities Dealers Automated Quotation System ("NASDAQ"), NASDAQ National System or a national securities exchange, the determination shall be made by reference to market quotations. If there are no market quotations for such date, the determination shall be made by reference to the last date preceding such date for which there are market quotations.

(g) "Good Reason" has the meaning ascribed to it in the Employment Agreement.

(h) "Securities Act" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

2. Restrictions on Transfer of Award. This Award may not be sold, transferred, pledged, assigned or otherwise encumbered or disposed of by the Grantee. Any shares of Stock issuable with respect to the Award may not be sold, transferred, pledged, assigned or otherwise encumbered or disposed of until (i) the Restricted Stock Units have vested as provided in Paragraph 3 of this Agreement, (ii) shares of Stock have been issued to the Grantee in accordance with the terms of this Agreement and (iii) there is an effective registration statement registering any such shares of Stock under the Securities Act (or the Grantee has obtained an opinion of counsel stating that registration under the Securities Act is not required).

3. Vesting of Restricted Stock Units. Subject to Paragraphs 4 and 5 below, the restrictions and conditions of Paragraph 2 of this Agreement shall lapse on the vesting date or dates specified in the following schedule so long as the Grantee remains an employee of the Company on such Dates. If a series of vesting dates is specified, then the restrictions and conditions in Paragraph 2 shall lapse only with respect to the number of Restricted Stock Units specified as vested on such date. Vesting of the Restricted Stock Units issued pursuant to this Award will be triggered with respect to the number of Restricted Stock Units set forth on Exhibit A attached hereto upon (A) the Stock attaining certain price levels as set forth on Exhibit A based on the average closing price of the Stock on NASDAQ (or such other exchange or trading market as may be applicable from time to time) over any ten consecutive trading date period (each a "Stock Price Vesting Target") and/or (B) the good faith determination by the Board of Directors of the Company or its executive committee that the Company has secured firm and commercially reasonable contracts representing $25 million of annual revenue and has established the supply chain needed to perform under such contracts (the "Revenue Vesting Target"). Once vesting of a specified number of Restricted Stock Units issued pursuant to this Award has been triggered by attaining a Stock Price Vesting Target or the Revenue Vesting Target, then twenty-five percent (25%) of the Restricted Stock Units triggered for vesting shall vest on the first anniversary of the date such Restricted Stock Units were triggered for vesting (each such date, the "Vesting Trigger Date"), twenty-five percent (25%) of the Restricted Stock Units triggered for vesting shall vest on the second anniversary of the Vesting Trigger Date and the remaining 50% of the Restricted Stock Units triggered for vesting shall vest on the third anniversary of the Vesting Trigger Date. To the extent vesting of the Restricted Stock Units issued pursuant to this Award have not been triggered by January 2, 2016, they will be forfeited and such Restricted Stock Units will vest under any circumstances.

The Committee may at any time accelerate the vesting schedule specified in this Paragraph 3.

4. Termination of Employment. If the Grantee's employment with the Company is terminated, the vesting of the Restricted Stock Units shall be treated as set forth below.

(a) Termination Due to Non-Renewal of Employment Agreement. If the Company chooses not to renew the Employment Agreement and the Grantee's employment terminates upon or promptly after the expiration of the Agreement Term due to such non-renewal, then regardless of such termination and regardless of any terms of this Award to the contrary, the

vesting of all unvested Restricted Stock Units shall continue as scheduled; provided, however, that the Grantee executes a release of claims in accordance with the terms of the Employment Agreement and does not revoke such release of claims.

(b) Termination Due to Death or Disability. If the Grantee's employment terminates by reason of his death or Disability, regardless of such termination and regardless of any terms of this Award to the contrary, the vesting of all unvested Restricted Stock Units shall continue as scheduled.

(c) Termination Without Cause or for Good Reason. If the Grantee's employment is terminated by the Company without Cause or by the Grantee for Good Reason, then regardless of such termination and regardless of any terms of this Award to the contrary, the vesting of all unvested Restricted Stock Units shall continue as scheduled; provided, however, that the Grantee executes a release of claims in accordance with the terms of the Employment Agreement and does not revoke such release of claims.

(d) Other Termination. If the Grantee's employment terminates for any reason other than as set forth above, and unless otherwise determined by the Committee, all unvested Restricted Stock Units shall terminate immediately and be of no further force and effect.

5. Change of Control. In the event of a Change of Control, all unvested Restricted Stock Units shall immediately become fully vested.

6. Issuance of Shares of Stock. Promptly following each vesting date, the Company shall issue to the Grantee the number of shares of Stock equal to the aggregate number of Restricted Stock Units that have vested pursuant to Paragraphs 3, 4 or 5 of this Agreement on such date (subject to appropriate adjustment in the event of any stock split, stock dividend, combination or other similar recapitalization with respect to such Stock).

7. Powers of the Committee. The Committee shall have the power and authority to accelerate at any time the exercisability or vesting of all or any Restricted Stock Units.

8. Tax Withholding. Promptly following each vesting date, the Grantee shall pay to the Company, elect to have shares of Stock withheld by the Company, or make other arrangements satisfactory to the Administrator for payment of any Federal, state, and local taxes required by law to be withheld on account of such vesting. In the absence of such payment or arrangement, the Company shall have the authority to cause the required minimum tax withholding obligation to be satisfied, in whole or in part, by withholding from shares of Stock to be issued to the Grantee a number of shares of Stock with an aggregate Fair Market Value that would satisfy the minimum withholding amount due.

9. Section 409A of the Code. Anything in this Agreement to the contrary notwithstanding, if at the time of the Grantee's separation from service within the meaning of Section 409A of the Code, the Company determines that Grantee is a "specified employee" within the meaning of Section 409A(a)(2)(B)(i) of the Code, then to the extent any shares of Stock that the Grantee becomes entitled to under this Agreement on account of the Grantee's separation from service would be considered deferred compensation otherwise subject to the 20 percent additional tax imposed pursuant to Section 409A(a) of the Code as a result of the application of Section 409A(a)(2)(B)(i) of the Code, such benefit shall not be payable and such benefit shall not be

provided until the date that is the earlier of (A) six months and one day after the Grantee's separation from service, or (B) the Grantee's death; provided, further, that if the vesting of any Restricted Stock Units shall continue as scheduled after the Grantee's separation from service, such unvested Restricted Stock Units shall also be treated in the same manner such that any shares of Stock issuable upon the vesting of such Restricted Stock Units shall not be issued until the date that is the earlier of (C) six months and one day after the Grantee's separation from service, or (D) the Grantee's death.

10. No Obligation to Continue Employment. The Company is not obligated by or as a result of this Agreement to continue the Grantee in employment and this Agreement shall not interfere in any way with the right of the Company to terminate the employment of the Grantee at any time.

11. Integration. This Agreement and the Employment Agreement constitute the entire agreement between the parties with respect to this Award and supersede all prior agreements and discussions between the parties concerning such subject matter. In the event of any inconsistency between this Agreement and the Employment Agreement, the terms of the Employment Agreement shall prevail.

12. Data Privacy Consent. In order to administer this Agreement and to implement or structure future equity grants, the Company, its subsidiaries and affiliates and certain agents thereof (together, the "Relevant Companies") may process any and all personal or professional data, including but not limited to Social Security or other identification number, home address and telephone number, date of birth and other information that is necessary or desirable for the administration of this Agreement (the "Relevant Information"). By entering into this Agreement, the Grantee (i) authorizes the Company to collect, process, register and transfer to the Relevant Companies all Relevant Information; (ii) waives any privacy rights the Grantee may have with respect to the Relevant Information; (iii) authorizes the Relevant Companies to store and transmit such information in electronic form; and (iv) authorizes the transfer of the Relevant Information to any jurisdiction in which the Relevant Companies consider appropriate. The Grantee shall have access to, and the right to change, the Relevant Information. Relevant Information will only be used in accordance with applicable law.

13. Notices. Notices hereunder shall be mailed or delivered to the Company at its principal place of business and shall be mailed or delivered to the Grantee at the address on file with the Company or, in either case, at such other address as one party may subsequently furnish to the other party in writing.

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By: /s/ Joseph D. Hill
Title: CFO

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned. Electronic acceptance of this Agreement pursuant to the Company's instructions to the Grantee (including through an online acceptance process) is acceptable.

Dated: March 24, 2014

/s/ Joseph Shaulson
Grantee's Signature

Grantee's name and address:

Joseph Shaulson
39 Very Merry Road
Stamford, CT 06903

Exhibit A

Price Levels / Target	**# of Restricted Stock Units that will begin to vest**
If the Company's stock trades at $3 per share for ten consecutive trading days	150,000
If the Company's stock trades at $4 per share for ten consecutive trading days	150,000
If the Company's stock trades at $5 per share for ten consecutive trading days	150,000
If the Company's stock trades at $6 per share for ten consecutive trading days	150,000
If the Company reaches the Revenue Vesting Target	Vesting begins on 100% of the Restricted Stock Units that have not already been triggered by attainment of Stock Price Vesting Targets

SECOND AMENDMENT TO LEASE

THIS SECOND AMENDMENT TO LEASE (this "Second Amendment") is entered into as of this _25th_ day of October, 2013, by and between BMR-21 ERIE STREET LLC, a Delaware limited liability company ("Landlord," as successor-in-interest to 21 Erie Realty Trust ("Original Landlord")), and METABOLIX, INC., a Delaware corporation ("Tenant").

RECITALS

A. WHEREAS, Original Landlord and Tenant entered into that certain Lease dated as of December 29, 2003 (the "Original Lease"), as amended by that certain First Amendment to Lease dated as of March 1, 2006 (the "First Amendment" and together with the Original Lease, and as the same may have been heretofore further amended, amended and restated, supplemented or modified from time to time, the "Lease"), whereby Tenant leases certain premises from Landlord consisting of approximately twenty-eight thousand nineteen (28,019) rentable square feet of space and comprised of twenty-six thousand four hundred twenty-two (26,422) rentable square feet of space on the second floor (being all of the second floor) and one thousand five hundred ninety-seven (1,597) rentable square feet of space located on the first floor (collectively, the "Premises") in the building at 21 Erie Street in Cambridge, Massachusetts (the "Building");

B. WHEREAS, Landlord and Tenant desire to extend the Term of the Lease; and

C. WHEREAS, Landlord and Tenant desire to modify and amend the Lease only in the respects and on the conditions hereinafter stated.

AGREEMENT

NOW, THEREFORE, Landlord and Tenant, in consideration of the mutual promises contained herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and intending to be legally bound, agree as follows:

1. Definitions. For purposes of this Second Amendment, capitalized terms shall have the meanings ascribed to them in the Lease unless otherwise defined herein. The Lease, as amended by this Second Amendment, is referred to herein as the "Amended Lease."

2. Extension Term. The Term of the Lease is hereby extended by seventy-two (72) months and nine (9) days, and therefore, subject to Sections 11 and 12 hereof, the Term of the Lease shall expire on May 31, 2020 (the "Extension Term Expiration Date"). The period commencing on May 22, 2014 (the "Extension Term Commencement Date") and ending on the Extension Term Expiration Date shall be referred to herein as the "Extension Term." For the sake of clarity, the first sentence of definition of "Term: Lease Year:" under Article 1 of the Lease is hereby deleted in its entirety and replaced with the following: "The first Lease Year begins at 12:01 a.m. on the Term Commencement Date and ends at 11:59 p.m. twelve months after said Term Commencement Date."

3. Base Rent. During the Extension Term, the amount of Base Rent for the Premises shall be as set forth in the following table:

Dates	Square Feet of Rentable Area	Base Rent per Square Foot of Rentable Area	Annual Base Rent
May 22, 2014 – May 21, 2015	28,019	$41.00 annually	$ 1,148,779.00
May 22, 2015 – May 21, 2016	28,019	$42.00 annually	$ 1,176,798.00
May 22, 2016 – May 21, 2017	28,019	$43.00 annually	$ 1,204,817.00
May 22, 2017 – May 21, 2018	28,019	$44.00 annually	$ 1,232,836.00
May 22, 2018 – May 21, 2019	28,019	$45.00 annually	$ 1,260,855.00
May 22, 2019 – May 31, 2020	28,019	$46.00 annually	$ 1,320,653.00*

* Denotes an extra $31,778 payment due to an extra nine (9) days of Base Rent.

4. Additional Rent. During the Extension Term, Tenant shall pay to Landlord Additional Rent with respect to the Premises in accordance with Section 4.02 of the Lease, including Tenant's Pro Rata Share of: (i) Taxes under Article 5 of the Lease, (ii) all utility costs under Article 6 of the Lease (unless separately metered or contracted for by Tenant), (iii) insurance premiums paid by Landlord under Article 7 of the Lease and (iv) all Operating Expenses under Article 8 of the Lease.

5. Condition of Premises. Tenant acknowledges that (a) it is in possession of and is fully familiar with the condition of the Premises and, notwithstanding anything contained in the Lease to the contrary, agrees to take the same in its condition "as is" as of the first day of the Extension Term, and (b) Landlord shall have no obligation to alter, repair or otherwise prepare the Premises for Tenant's continued occupancy for the Extension Term or to pay for any improvements to the Premises, except with respect to the TI Allowance (as defined below) or as may be expressly provided in the Lease.

6. Tenant Improvements.

(a) Tenant shall be permitted to perform appropriate improvements to the Premises (the "Tenant Improvements"), consistent with the Permitted Uses and in accordance with the terms of this Section 6 and Exhibit 1 attached hereto. Tenant shall cause the Tenant Improvements to be constructed in the Premises pursuant to the Work Letter attached hereto as Exhibit 1 (the "Work Letter") at a cost to Landlord not to exceed Four Hundred Twenty Thousand Two Hundred Eighty-Five and 00/100 Dollars ($420,285.00) (based upon Fifteen and 00/100 Dollars ($15.00) per square foot of rentable area (the "TI Allowance"). The TI Allowance may be applied to the costs of (i) construction, (ii) project review by Landlord (which fee shall equal three percent (3%) of the cost of the Tenant Improvements, including the TI Allowance), (iii) space planning, architect, engineering and other related services performed by third parties unaffiliated with Tenant, (iv) building permits and other taxes, fees, charges and

levies by governmental authorities for permits or for inspections of the Tenant Improvements, and (v) costs and expenses for labor, material, equipment and fixtures, and (vi) subject to the Soft Cost Limit described below, soft costs for data/telecom cabling, signage, furniture, fixtures and equipment (collectively, "Soft Costs"). In no event shall the TI Allowance be used for (A) the cost of work that is not authorized by the Approved Plans (as defined in the Work Letter) or otherwise approved in writing by Landlord, (B) payments to Tenant or any affiliates of Tenant, (C) the purchase of any furniture, personal property or other non-building system equipment (except as otherwise provided above), (D) costs resulting from any default by Tenant of its obligations under the Amended Lease or (E) costs that are recoverable by Tenant from a third party (e.g., insurers, warrantors, or tortfeasors). Notwithstanding anything set forth herein to the contrary, no more than ten percent (10%) of the TI Allowance (the "Soft Cost Limit") shall be applied to the Soft Costs identified above.

(b) Tenant shall have until December 1, 2014 (the "TI Deadline"), to expend the unused portion of the TI Allowance, after which date Landlord's obligation to fund such costs shall expire.

(c) In no event shall any unused TI Allowance entitle Tenant to a credit against Rent payable under the Amended Lease. Tenant shall deliver to Landlord (i) a certificate of occupancy for the Premises suitable for the Permitted Uses and (ii) a Certificate of Substantial Completion in the form of the American Institute of Architects document G704, executed by the project architect and the general contractor. The term "Substantially Complete" or "Substantial Completion" means that the Tenant Improvements are substantially complete in accordance with the Approved Plans (as defined in the Work Letter), except for minor punch list items.

(d) Prior to the earlier of (i) the Extension Term Commencement Date and (ii) the date Tenant commences performance of the Tenant Improvements in the Premises, Tenant shall furnish to Landlord evidence satisfactory to Landlord that insurance coverages required of Tenant under the provisions of Article 7 of the Lease are in effect.

(e) Landlord and Tenant shall mutually agree upon the selection of the architect, engineer, general contractor and major subcontractors, and Landlord and Tenant shall each participate in the review of the competitive bid process. Landlord may refuse to use any architects, consultants, contractors, subcontractors or material suppliers that Landlord reasonably believes could cause labor disharmony.

7. Extension Term. Section 3.03(a) of the Lease and the definitions of "Extension Term" and "Base Rent: Extension Term:" under Article 1 of the Lease are hereby deleted in their entirety.

8. Relocation Right.

(a) Landlord shall have the right (the "Relocation Right") effective at any time after the third (3rd) anniversary of the Extension Term Commencement Date (i.e., after May 22, 2017), upon providing Tenant not less than nine (9) months' prior written notice (a "Relocation

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Notice"), to provide Tenant with space of substantially the same size and quality of improvements as the Premises elsewhere (a) in the Building, (b) at a property owned by an affiliate of Landlord at 200 Sidney Street, Cambridge, Massachusetts or (c) at a property owned by an affiliate of Landlord at 40 Erie Street, Cambridge, Massachusetts (the "Relocation Space"), and to remove Tenant from the Premises and place Tenant in the Relocation Space. Landlord shall pay any reasonable and customary costs and expenses related thereto. For purposes hereof, "space of substantially the same size and quality of improvements as the Premises" shall include, without limitation, a greenhouse of substantially the same size and quality as the greenhouse currently contained in the Premises. Landlord shall endeavor to provide the Relocation Space in one contiguous location (except that the greenhouse may be either in the same building as, or within close proximity to, the remaining balance of the Relocation Space (such remaining balance (the "Main Relocation Space")); provided, however, that, in the event that the Main Relocation Space is not in one contiguous location, (i) the Main Relocation Space shall consist of no more than two (2) non-contiguous spaces, and (ii) one of the non-contiguous spaces included within the Main Relocation Space must comprise at least ninety-four percent (94%) of the rentable square feet of the Main Relocation Space. The Relocation Right may not be exercised by Landlord more than once during the Extension Term.

(b) Should Tenant refuse to permit Landlord to move Tenant to such Relocation Space at the end of such nine (9) month period, Tenant shall have, in addition to all other rights and remedies allowed under the Amended Lease, at law or in equity, the right to cancel and terminate the Amended Lease instead of relocating, upon providing written notice to Landlord within thirty (30) days after receipt of Landlord's Relocation Notice. In such event, the Amended Lease shall terminate effective as of the relocation date initially proposed by Landlord in the Relocation Notice. For the sake of clarity, if Tenant terminates the Lease pursuant to this Section 8(b), Tenant shall remain obligated to remove any additions, alterations, or other Tenant Work (including without limitation the greenhouse) in the current Premises pursuant to Section 10.06 of the Lease.

(c) Should Tenant refuse to permit Landlord to move Tenant to such Relocation Space and remain in the Premises after the expiration of such nine (9) month period, Landlord shall have, in addition to all other rights and remedies allowed under the Amended Lease, at law or in equity, the right to cancel and terminate the Amended Lease upon providing written notice to Tenant within thirty (30) days after the end of such nine (9) month period after receipt of Landlord's Relocation Notice. Upon providing such notice to Tenant, the Amended Lease shall immediately terminate.

(d) If Landlord moves Tenant to such Relocation Space, then the Amended Lease and each and all of its terms, covenants and conditions shall remain in full force and effect and be deemed applicable to such new Relocation Space and such new Relocation Space shall thereafter be deemed to be the "Premises," and Landlord or Landlord's affiliate, as applicable, and Tenant shall enter into an express written amendment to the Amended Lease or a new lease, as applicable, memorializing such change. If the new Relocation Space contains less rentable square footage than the original Premises, then Base Rent and Tenant's Pro Rata Share shall be decreased to reflect such change. For the sake of clarity, if Landlord moves Tenant to such

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Relocation Space, Tenant shall have no obligation to remove from the Premises from which Tenant is being relocated, any additions, alterations, or other Tenant Work (including without limitation the greenhouse) pursuant to Section 10.06 of the Lease; provided, however, that such obligations under Section 10.06 of the Lease shall apply to the Relocation Space at the expiration of the Extension Term.

9. Conditional Option to Extend Term. If Landlord exercises the relocation right granted in Section 8 above and Tenant is relocated, Tenant shall have the option ("Option") to extend the Term by three (3) years as to the entire Premises (and no less than the entire Premises) upon the following terms and conditions. Any extension of the Term pursuant to the Option shall be on all the same terms and conditions as the Amended Lease, except as follows:

(a) Base Rent shall be adjusted on the first (1st) day of the extension term and each annual anniversary date thereof by One and 00/100 Dollar ($1.00) per rentable square foot annually.

(b) The Option is not assignable separate and apart from the Amended Lease.

(c) The Option is conditional upon Tenant giving Landlord written notice of its election to exercise the Option at least twelve (12) months prior to the end of the expiration of the then-current Term. Time shall be of the essence as to Tenant's exercise of the Option. Tenant assumes full responsibility for maintaining a record of the deadlines to exercise the Option. Tenant acknowledges that it would be inequitable to require Landlord to accept any exercise of the Option after the date provided for in this Section.

(d) Notwithstanding anything contained in this Article to the contrary, Tenant shall not have the right to exercise the Option:

(i) During the time commencing from the date Landlord delivers to Tenant a written notice that Tenant is in default under any provisions of the Amended Lease and continuing until Tenant has cured the specified default to Landlord's reasonable satisfaction; or

(ii) At any time after any Event of Default as described in Article 14 of the Lease (provided, however, that, for purposes of this Section 9(d)(ii), Landlord shall not be required to provide Tenant with any additional notice of such Event of Default beyond the notice Landlord is required to give Tenant under Article 14 of the Lease) and continuing until Tenant cures any such Event of Default, if such Event of Default is susceptible to being cured; or

(iii) In the event that Tenant has defaulted in the performance of its obligations under the Amended Lease two (2) or more times and a service or late charge has become payable under Section 4.03 of the Lease for each of such defaults during the twelve (12)-month period immediately prior to the date that Tenant intends to exercise the Option, whether or not Tenant has cured such defaults.

(e) The period of time within which Tenant may exercise the Option shall not be extended or enlarged by reason of Tenant's inability to exercise such Option because of the provisions of Section 9(d).

(f) All of Tenant's rights under the provisions of the Option shall terminate and be of no further force or effect even after Tenant's due and timely exercise of the Option if, after such exercise, but prior to the commencement date of the new term, (i) Tenant fails to pay to Landlord a monetary obligation of Tenant for a period of twenty (20) days after written notice from Landlord to Tenant, (ii) Tenant fails to commence to cure a default (other than a monetary default) within thirty (30) days after the date Landlord gives notice to Tenant of such default or (iii) Tenant has defaulted under the Amended Lease two (2) or more times and a service or late charge under Section 4.03 of the Lease has become payable for any such default, whether or not Tenant has cured such defaults.

10. Early Termination Right. The parties hereby confirm and agree that Section 3.04 of the Lease and Exhibit O to the Lease are no longer of any force or effect.

11. Tenant's Termination Option. Tenant shall have a one-time option ("Tenant's Termination Option") to terminate the Amended Lease with respect to the entire Premises effective as of the third (3rd) anniversary of the Extension Term Commencement Date (i.e., May 22, 2017)(except for those provisions that expressly survive the expiration or earlier termination of the Amended Lease); provided, that Tenant (a) provides Landlord with no less than twelve (12) months prior written notice ("Tenant's Termination Notice") and (b) pays Landlord at the time Tenant delivers to Landlord such Tenant Termination Notice a termination fee equal to the unamortized (on a straight-line basis) portion of costs paid by Landlord in connection with this Second Amendment, including the TI Allowance and any brokerage commissions. If Tenant timely exercises Tenant's Termination Option, then Tenant shall surrender the Premises to Landlord on the termination date in the condition required by the Amended Lease for surrendering Premises upon the expiration or earlier termination thereof. Time is of the essence with respect to the exercise of Tenant's Termination Option.

12. Landlord's Termination Option. Landlord shall have a one-time option ("Landlord's Termination Option") to terminate the Amended Lease with respect to the entire Premises effective as of the third (3rd) anniversary of the Extension Term Commencement Date (i.e., May 22, 2017) (except for those provisions that expressly survive the expiration or earlier termination of the Amended Lease); provided, that Landlord provides Tenant with no less than nine (9) months prior written notice. If Landlord timely exercises Landlord's Termination Option, then Tenant shall surrender the Premises to Landlord on the termination date in the condition required by the Amended Lease for surrendering Premises upon the expiration or earlier termination thereof. Time is of the essence with respect to the exercise of Landlord's Termination Option.

13. Right of First Offer. Article 18 of the Lease is hereby deleted in its entirety and is of no further force or effect.

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14. Rules and Regulations. Exhibit E to the Lease is hereby deleted in its entirety and is replaced with New Exhibit E attached hereto.

15. Future Spaces. Pursuant to Section 2 of the First Amendment, Tenant exercised its right to lease from Landlord, on a month-to-month basis, additional Future Spaces for parking. The parties hereby confirm and agree that, subject to the provisions of the Amended Lease, Tenant currently leases six (6) Future Spaces from Landlord. The rental rate for the those spaces granted to Tenant in Section 2.01(d) of the Lease, the Additional Spaces and the Future Spaces is currently Two Hundred Forty-Five and 00/100 Dollars ($245.00) per month per parking space (which rental rate may be increased by Landlord from time to time upon prior notice from Landlord).

16. PTDM. The Amended Lease is subject to the Parking and Transportation Demand Management Plan for the Property that was approved on May 11, 1999 and that is attached hereto as Exhibit 2 (the "PTDM"). Tenant acknowledges that Tenant, at its sole cost and expense, shall comply with only

those requirements in the PTDM that, in Landlord's reasonable discretion, are applicable to Tenant (but not those requirements that are only applicable to Landlord or only applicable to any other specific tenant(s) of the Property), including the requirements set forth in the "IV. Alternative Mode Promotions and Incentives", "V. Alternative Work Programs" and "VI. Marketing Programs" sections thereof. Tenant, at its sole cost and expense, shall also comply with the reporting requirements set forth in the PTDM, insofar as the same apply to Tenant or are relevant to Tenant's role in or contribution to the PTDM fulfillment requirements for the Building (but not otherwise) at Landlord's written request. Any costs incurred by Landlord in connection with the PTDM shall be an Operating Expense.

17. Broker. Tenant represents and warrants that it has not dealt with any broker or agent in the negotiation for or the obtaining of this Second Amendment, other than Jones Lang LaSalle ("Broker"), and agrees to indemnify, defend and hold Landlord harmless from any and all cost or liability for compensation claimed by any such broker or agent, other than Broker, employed or engaged by it or claiming to have been employed or engaged by it. Broker is entitled to a leasing commission in connection with the making of this Second Amendment, and Landlord shall pay such commission to Broker pursuant to a separate agreement between Landlord and Broker.

18. No Default. Tenant represents, warrants and covenants that, to the best of Tenant's knowledge, Landlord and Tenant are not in default of any of their respective obligations under the Lease and no event has occurred that, with the passage of time or the giving of notice (or both) would constitute a default by either Landlord or Tenant thereunder.

19. Notices.

(a) Tenant confirms that, notwithstanding anything in the Lease to the contrary, notices delivered to Tenant pursuant to the Amended Lease should be sent to, and the "Original Address of Tenant" under Article 1 of the Lease is hereby deleted and replaced with the following:

Metabolix, Inc.
21 Erie Street
Cambridge, Massachusetts 02139
Attn: President

(b) Landlord confirms that, notwithstanding anything in the Lease to the contrary, notices delivered to Landlord pursuant to the Amended Lease should be sent to, and the "Original Address of Landlord" under Article 1 of the Lease is hereby deleted and replaced with the following:

BMR-21 Erie Street LLC
17190 Bernardo Center Drive
San Diego, California 92128
Attn: Vice President, Real Estate Legal

20. Effect of Second Amendment. Except as modified by this Second Amendment, the Lease and all the covenants, agreements, terms, provisions and conditions thereof shall remain in full force and effect and are hereby ratified and affirmed. The covenants, agreements, terms, provisions and conditions contained in this Second Amendment shall bind and inure to the benefit of the parties hereto and their respective successors and, except as otherwise provided in the Lease, their respective assigns. In the event of any conflict between the terms contained in this Second Amendment and the Lease, the terms herein contained shall supersede and control the obligations and liabilities of the parties. From and after the date hereof, the term "Lease" as used in the Lease shall mean the Lease, as modified by this Second Amendment.

21. Miscellaneous. This Second Amendment becomes effective only upon execution and delivery hereof by Landlord and Tenant. The captions of the paragraphs and subparagraphs in this Second Amendment are inserted and included solely for convenience and shall not be considered or given any effect in construing the provisions hereof. All exhibits hereto are incorporated herein by reference. Submission of this instrument for examination or signature by Tenant does not constitute a reservation of or option for a lease, and shall not be effective as a lease, lease amendment or otherwise until execution by and delivery to both Landlord and Tenant.

22. Counterparts. This Second Amendment may be executed in one or more counterparts, each of which, when taken together, shall constitute one and the same document.

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IN WITNESS WHEREOF, Landlord and Tenant have hereunto set their hands as of the date and year first above written as a sealed Massachusetts instrument, and acknowledge that they possess the requisite authority to enter into this transaction and to execute this Second Amendment.

LANDLORD:

BMR-21 ERIE STREET LLC,
a Delaware limited liability company

By: /s/ Kevin M. Simonsen
Name: Kevin M. Simonsen
Title: VP, Real Estate Legal

TENANT:

METABOLIX, INC.,
a Delaware corporation

By: /s/ Joseph D. Hill
Name: Joseph Hill
Title: Chief Financial Officer

EXHIBIT 1

WORK LETTER

This Work Letter (this "Work Letter") is made and entered into as of the day of October, 2013, by and between BMR-21 ERIE STREET LLC, a Delaware limited liability company ("Landlord"), and METABOLIX, INC., a Delaware corporation ("Tenant"), and is attached to and made a part of that certain Second Amendment to Lease dated as of the day of October, 2013 (the "Second Amendment"), which Second Amendment amends that certain Lease dated as of December 29, 2003, as amended by that certain First Amendment to Lease dated as of March 1, 2006 (collectively, and as the same may be amended, amended and restated, supplemented or otherwise modified from time to time, the "Lease"), by and between Landlord and Tenant for the Premises located at 21 Erie Street in Cambridge, Massachusetts. All capitalized terms used but not otherwise defined herein shall have the meanings given them in the Amended Lease.

1. General Requirements.

1.1. Authorized Representatives.

(a) Landlord designates, as Landlord's authorized representative ("Landlord's Authorized Representative"), (i) Salvatore Zinno as the person authorized to initial plans, drawings, approvals and to sign change orders pursuant to this Work Letter and (ii) an officer of Landlord as the person authorized to sign any amendments to this Work Letter or the Amended Lease. Tenant shall not be obligated to respond to or act upon any such item until such item has been initialed or signed (as applicable) by the appropriate Landlord's Authorized Representative. Landlord may change either Landlord's Authorized Representative upon one (1) business day's prior written notice to Tenant.

(b) Tenant designates Rick Fisher ("Tenant's Authorized Representative") as the person authorized to initial and sign all plans, drawings, change orders and approvals pursuant to this Work Letter. Landlord shall not be obligated to respond to or act upon any such item until such item has been initialed or signed (as applicable) by Tenant's Authorized Representative. Tenant may change Tenant's Authorized Representative upon one (1) business day's prior written notice to Landlord.

1.2. Schedule. The schedule for design and development of the Tenant Improvements, including the time periods for preparation and review of construction documents, approvals and performance, shall be in accordance with a schedule to be prepared by Tenant (the "Schedule"). Tenant shall prepare the Schedule so that it is a reasonable schedule for the completion of the Tenant Improvements. As soon as the Schedule is completed, Tenant shall deliver the same to Landlord for Landlord's approval, which approval shall not be unreasonably withheld, conditioned or delayed. Such Schedule shall be approved or disapproved by Landlord within ten (10) business days after delivery to Landlord. Landlord's failure to respond within such ten (10) business day period shall be deemed approval by Landlord. If Landlord disapproves the

Schedule, then Landlord shall notify Tenant in writing of its objections to such Schedule, and the parties shall confer and negotiate in good faith to reach agreement on the Schedule. The Schedule shall be subject to adjustment as mutually agreed upon in writing by the parties, or as provided in this Work Letter.

1.3. Tenant's Architects, Contractors and Consultants. The architect, engineering consultants, design team, general contractor and subcontractors responsible for the construction of the Tenant Improvements shall be selected by Tenant and approved by Landlord, which approval Landlord shall not unreasonably withhold, condition or delay. Landlord may refuse to use any architects, consultants, contractors, subcontractors or material suppliers that Landlord reasonably believes could cause labor disharmony. All Tenant contracts related to the Tenant Improvements shall provide that Tenant may assign such contracts and any warranties with respect to the Tenant Improvements to Landlord at any time.

2. Tenant Improvements. All Tenant Improvements shall be performed by Tenant's contractor, at Tenant's sole cost and expense (subject to Landlord's obligations with respect to the TI Allowance) and in accordance with the Approved Plans (as defined below), the Amended Lease and this Work Letter. To the extent that the total projected cost of the Tenant Improvements (as projected by Landlord) exceeds the TI Allowance (such excess, the "Excess TI Costs"), Tenant shall advance to Landlord any Excess TI Costs within ten (10) days after receipt of an invoice therefor, but in any case before Tenant commences the Tenant Improvements. If the actual Excess TI Costs are less than the Excess TI Costs paid by Tenant to Landlord, Landlord shall return such excess to Tenant as provided in Section 6.1 below. If the cost of the Tenant Improvements (as projected by Landlord) increases over Landlord's initial projection, then Landlord may notify Tenant and Tenant shall deposit any additional Excess TI Costs with Landlord in the same way that Tenant deposited the initial Excess TI Costs. If Tenant fails to pay, or is late in paying, any sum due to Landlord under this Work Letter, then Landlord shall have all of the rights and remedies set forth in the Amended Lease for nonpayment of Rent (including the right to interest and the right to assess a late charge), and for purposes of any litigation instituted with regard to such amounts the same shall be considered Rent. All material and equipment furnished by Tenant or its contractors as the Tenant Improvements shall be of a quality equal to the building standard; the Tenant Improvements shall be performed in a first-class, workmanlike manner; and the quality of the Tenant Improvements shall be of a nature and character not less than the building standard. Tenant shall take, and shall require its contractors to take, commercially reasonable steps to protect the Premises during the performance of any Tenant Improvements, including covering or temporarily removing any window coverings so as to guard against dust, debris or damage. All Tenant Improvements shall be performed in accordance with Section 10.05 of the Lease; provided that, notwithstanding anything in the Amended Lease or this Work Letter to the contrary, in the event of a conflict between this Work Letter and Section 10.05 of the Lease, the terms of this Work Letter shall govern.

2.1. Work Plans. Tenant shall prepare and submit to Landlord for approval schematics covering the Tenant Improvements prepared in conformity with the applicable provisions of this Work Letter (the "Draft Schematic Plans"). The Draft Schematic Plans shall contain sufficient information

and detail to accurately describe the proposed design to Landlord

and such other information as Landlord may reasonably request. Landlord shall notify Tenant in writing within ten (10) business days after receipt of the Draft Schematic Plans whether Landlord approves or objects to the Draft Schematic Plans and of the manner, if any, in which the Draft Schematic Plans are unacceptable. Landlord's failure to respond within such ten (10) business day period shall be deemed approval by Landlord. If Landlord reasonably objects to the Draft Schematic Plans, then Tenant shall revise the Draft Schematic Plans and cause Landlord's objections to be remedied in the revised Draft Schematic Plans. Tenant shall then resubmit the revised Draft Schematic Plans to Landlord for approval, such approval not to be unreasonably withheld, conditioned or delayed. Landlord's approval of or objection to revised Draft Schematic Plans and Tenant's correction of the same shall be in accordance with this Section until Landlord has approved the Draft Schematic Plans in writing or been deemed to have approved them. The iteration of the Draft Schematic Plans that is approved or deemed approved by Landlord without objection shall be referred to herein as the "Approved Schematic Plans."

2.2. Construction Plans. Tenant shall prepare final plans and specifications for the Tenant Improvements that (a) are consistent with and are logical evolutions of the Approved Schematic Plans and (b) incorporate any other Tenant-requested (and Landlord-approved) Changes (as defined below). As soon as such final plans and specifications ("Construction Plans") are completed, Tenant shall deliver the same to Landlord for Landlord's approval, which approval shall not be unreasonably withheld, conditioned or delayed. Such Construction Plans shall be approved or disapproved by Landlord within ten (10) business days after delivery to Landlord. Landlord's failure to respond within such ten (10) business day period shall be deemed approval by Landlord. If the Construction Plans are disapproved by Landlord, then Landlord shall notify Tenant in writing of its objections to such Construction Plans, and the parties shall confer and negotiate in good faith to reach agreement on the Construction Plans. Promptly after the Construction Plans are approved by Landlord and Tenant, two (2) copies of such Construction Plans shall be initialed and dated by Landlord and Tenant, and Tenant shall promptly submit such Construction Plans to all appropriate governmental authorities for approval. The Construction Plans so approved or deemed approved, and all change orders specifically permitted by this Work Letter, are referred to herein as the "Approved Plans."

2.3. Changes to the Tenant Improvements. Any changes to the Approved Plans (each, a "Change") shall be requested and instituted in accordance with the provisions of this Article 2 and shall be subject to the written approval of the non-requesting party in accordance with this Work Letter.

(a) Change Request. Either Landlord or Tenant may request Changes after Landlord approves the Approved Plans by notifying the other party thereof in writing in substantially the same form as the AIA standard change order form (a "Change Request"), which Change Request shall detail the nature and extent of any requested Changes, including (a) the Change, (b) the party required to perform the Change and (c) any modification of the Approved Plans and the Schedule, as applicable, necessitated by the Change. If the nature of a Change requires revisions to the Approved Plans, then the requesting party shall be solely responsible for the cost and expense of such revisions and any increases in the cost of the Tenant Improvements

as a result of such Change. Change Requests shall be signed by the requesting party's Authorized Representative.

(b) Approval of Changes. All Change Requests shall be subject to the other party's prior written approval, which approval shall not be unreasonably withheld, conditioned or delayed. The non-requesting party shall have five (5) business days after receipt of a Change Request to notify the requesting party in writing of the non-requesting party's decision either to approve or object to the Change Request. The non-requesting party's failure to respond within such five (5) business day period shall be deemed approval by the non-requesting party.

2.4. Preparation of Estimates. Tenant shall, before proceeding with any Change, using its best efforts, prepare as soon as is reasonably practicable (but in no event more than five (5) business days after delivering a Change Request to Landlord or receipt of a Change Request) an estimate of the increased costs or savings that would result from such Change, as well as an estimate on such Change's effects on the Schedule. Landlord shall have five (5) business days after receipt of such information from Tenant to (a) in the case of a Tenant-initiated Change Request, approve or reject such Change Request in writing, or (b) in the case of a Landlord-initiated Change Request, notify Tenant in writing of Landlord's decision either to proceed with or abandon the Landlord-initiated Change Request.

2.5. Quality Control Program; Coordination. Tenant shall provide Landlord with information regarding the following (together, the "QCP"): (a) Tenant's general contractor's quality control program and (b) evidence of subsequent monitoring and action plans. The QCP shall be subject to Landlord's reasonable review and approval and shall specifically address the Tenant Improvements. Tenant shall ensure that the QCP is regularly implemented on a scheduled basis and shall provide Landlord with reasonable prior notice and access to attend all inspections and meetings between Tenant and its general contractor. At the conclusion of the Tenant Improvements, Tenant shall deliver the quality control log to Landlord, which shall include all records of quality control meetings and testing and of inspections held in the field, including inspections relating to concrete, steel roofing, piping pressure testing and system commissioning.

3. Completion of Tenant Improvements. Tenant, at its sole cost and expense (except for the TI Allowance), shall perform and complete the Tenant Improvements in all respects (a) in substantial conformance with the Approved Plans, (b) otherwise in compliance with provisions of the Amended Lease and this Work Letter and (c) in accordance with Legal Requirements (as defined in the Lease), the requirements of Tenant's insurance carriers, the requirements of Landlord's insurance carriers (to the extent Landlord provides its insurance carriers' requirements to Tenant) and the board of fire underwriters having jurisdiction over the Premises. The Tenant Improvements shall be deemed completed at such time as Tenant shall furnish to Landlord (u) evidence satisfactory to Landlord that (i) all Tenant Improvements have been completed and paid for in full (which shall be evidenced by the architect's certificate of completion and the general contractor's and each subcontractor's and material supplier's final unconditional waivers and releases of liens, each in a form acceptable to Landlord and complying with Legal Requirements and a Certificate of Substantial Completion in the form of

the American Institute of Architects document G704, executed by the project architect and the general contractor, together with a statutory notice of substantial completion from the general contractor), (ii) all Tenant Improvements have been accepted by Landlord, (iii) any and all liens related to the Tenant Improvements have either been discharged of record (by payment, bond, order of a court of competent jurisdiction or otherwise) or waived by the party filing such lien and (iv) no security interests relating to the Tenant Improvements are outstanding, (v) all certifications and approvals with respect to the Tenant Improvements that may be required from any governmental authority and any board of fire underwriters or similar body for the use and occupancy of the Premises (including a certificate of occupancy for the Premises for the Permitted Use), (w) certificates of insurance required by the Amended Lease to be purchased and maintained by Tenant, (x) an affidavit from Tenant's architect certifying that all work performed in, on or about the Premises is in accordance with the Approved Plans, (y) complete "as built" drawing print sets, project specifications and shop drawings and electronic CADD files on disc (showing the Tenant Improvements as an overlay on the Building "as built" plans (provided that Landlord provides the Building "as-built" plans provided to Tenant) of all contract documents for work performed by their architect and engineers in relation to the Tenant Improvements and (z) such other "close out" materials as Landlord reasonably requests consistent with Landlord's own requirements for its contractors, such as copies of manufacturers' warranties, operation and maintenance manuals and the like.

4. Insurance.

4.1. Property Insurance. At all times during the period beginning with commencement of construction of the Tenant Improvements and ending with final completion of the Tenant Improvements, Tenant shall maintain, or cause to be maintained (in addition to the insurance required of Tenant pursuant to the Amended Lease), property insurance insuring Landlord and its officers, directors, employees, agents, general partners, members, subsidiaries, affiliates and lenders ("Landlord Parties"), as their interests may appear. Such policy shall, on a completed values basis for the full insurable value at all times, insure against loss or damage by fire, vandalism and malicious mischief and other such risks as are customarily covered by the so-called "broad form extended coverage endorsement" upon all Tenant Improvements and the general contractor's and any subcontractors' machinery, tools and equipment, all while each forms a part of, or is contained in, the Tenant Improvements or any temporary structures on the Premises, or is adjacent thereto; provided that, for the avoidance of doubt, insurance coverage with respect to the general contractor's and any subcontractors' machinery, tools and equipment shall be carried on a primary basis by such general contractor or the applicable subcontractor(s). Tenant agrees to pay any deductible, and Landlord is not responsible for any deductible, for a claim under such insurance. Such property insurance shall contain an express waiver of any right of subrogation by the insurer against Landlord and the Landlord Parties, and shall name Landlord and its affiliates as loss payees as their interests may appear.

4.2. Workers' Compensation Insurance. At all times during the period of construction of the Tenant Improvements, Tenant shall, or shall cause its contractors or subcontractors to, maintain statutory workers' compensation insurance as required by Legal Requirements.

5. Liability. Tenant assumes sole responsibility and liability for any and all injuries or the death of any persons, including Tenant's contractors and subcontractors and their respective employees, agents and invitees, and for any and all damages to property caused by, resulting from or arising out of any act or omission on the part of Tenant, Tenant's contractors or subcontractors, or their respective employees, agents and invitees in the prosecution of the Tenant Improvements. Tenant agrees to indemnify, save, defend (at Landlord's option and with counsel reasonably acceptable to Landlord) and hold the Landlord Indemnitees harmless from and against all demands, claims, liabilities, losses, costs, expenses, actions, causes of action, damages, suits or judgments, and all reasonable expenses (including reasonable attorneys' fees, charges and disbursements, regardless of whether the applicable demand, claim, action, cause of action or suit is voluntarily withdrawn or dismissed) incurred in investigating or resisting the same (collectively, "Claims") due to, because of or arising out of any and all such injuries, death or damage, whether real or alleged, and Tenant and Tenant's contractors and subcontractors shall assume and defend at their sole cost and expense all such Claims; provided, however, that nothing contained in this Work Letter shall be deemed to indemnify or otherwise hold Landlord harmless from or against liability caused by Landlord's negligence or willful misconduct. Any deficiency in design or construction of the Tenant Improvements shall be solely the responsibility of Tenant, notwithstanding the fact that Landlord may have approved of the same in writing.

6. TI Allowance.

6.1. Application of TI Allowance. Landlord shall contribute the TI Allowance and any Excess TI Costs advanced by Tenant to Landlord toward the costs and expenses incurred in connection with the performance of the Tenant Improvements, in accordance with Section 6 of the Second Amendment. If the entire TI Allowance is not applied toward or reserved for the costs of the Tenant Improvements, then Tenant shall not be entitled to a credit of such unused portion of the TI Allowance. If the entire Excess TI Costs advanced by Tenant to Landlord are not applied toward the costs of the Tenant Improvements, then Landlord shall promptly return such excess to Tenant following completion of the Tenant Improvements. Tenant may apply the TI Allowance for the payment of construction and other costs in accordance with the terms and provisions of the Second Amendment.

6.2. Approval of Budget for the Tenant Improvements. Notwithstanding anything to the contrary set forth elsewhere in this Work Letter or the Amended Lease, Landlord shall not have any obligation to expend any portion of the TI Allowance until Landlord and Tenant shall have approved in writing the budget for the Tenant Improvements (the "Approved Budget"). Prior to Landlord's approval of the Approved Budget, Tenant shall pay all of the costs and expenses incurred in connection with the Tenant Improvements as they become due. Landlord shall not be obligated to reimburse Tenant for costs or expenses relating to the Tenant Improvements that exceed the amount of the TI Allowance. Landlord shall not unreasonably withhold, condition or delay its approval of any budget for Tenant Improvements that is proposed by Tenant.

6.3. Fund Requests. Upon submission by Tenant to Landlord of (a) a statement (a "Fund Request") setting forth the total amount of the TI Allowance requested, (b) a summary of the Tenant Improvements performed using AIA standard form Application for Payment (G 702) executed by the general contractor and by the architect, (c) invoices from the general contractor, the architect, and any subcontractors, material suppliers and other parties requesting payment with respect to the amount of the TI Allowance then being requested, (d) except with respect to the final Fund Request, conditional lien releases from the general contractor and each subcontractor and material supplier with respect to the Tenant Improvements performed that correspond to the Fund Request each in a form acceptable to Landlord and complying with Legal Requirements, then Landlord shall, within thirty (30) days following receipt by Landlord of a Fund Request and the accompanying materials required by this Section, pay to (as elected by Landlord) the applicable contractors, subcontractors and material suppliers or Tenant (for reimbursement for payments made by Tenant to such contractors, subcontractors or material suppliers in accordance with the Second Amendment and this Work Letter), the amount of Tenant Improvement costs set forth in such Fund Request or Landlord's pari passu share thereof if Excess TI Costs exist based on the Approved Budget; provided, however, that Landlord shall not be obligated to make any payments

under this Section until the budget for the Tenant Improvements is approved in accordance with Section 6.2 of this Work Letter, and any Fund Request under this Section shall be subject to the payment limits set forth in Section 6.2 above and Section 6 of the Second Amendment.

7. Miscellaneous.

7.1. Number; Headings. Where applicable in this Work Letter, the singular includes the plural and the masculine or neuter includes the masculine, feminine and neuter. The section headings of this Work Letter are not a part of this Work Letter and shall have no effect upon the construction or interpretation of any part hereof.

7.2. Attorneys' Fees. If either party commences a demand, claim, action, cause of action or suit against the other party arising out of or in connection with this Work Letter, then the substantially prevailing party shall be reimbursed by the other party for all reasonable costs and expenses, including reasonable attorneys' fees and expenses, incurred by the substantially prevailing party in such action or proceeding and in any appeal in connection therewith (regardless of whether the applicable demand, claim, action, cause of action or suit is voluntarily withdrawn or dismissed).

7.3. Time of Essence. Time is of the essence with respect to the performance of every provision of this Work Letter in which time of performance is a factor.

7.4. Covenant and Condition. Each provision of this Work Letter performable by Tenant shall be deemed both a covenant and a condition.

7.5. Withholding of Consent. Whenever consent or approval of either party is required, that party shall not unreasonably withhold, condition or delay such consent or approval, except as may be expressly set forth to the contrary.

7.6. Invalidity. Any provision of this Work Letter that shall prove to be invalid, void or illegal shall in no way affect, impair or invalidate any other provision hereof, and all other provisions of this Work Letter shall remain in full force and effect and shall be interpreted as if the invalid, void or illegal provision did not exist.

7.7. Interpretation. The language in all parts of this Work Letter shall be in all cases construed as a whole according to its fair meaning and not strictly for or against either Landlord or Tenant.

7.8. Successors. Each of the covenants, conditions and agreements herein contained shall inure to the benefit of and shall apply to and be binding upon the parties hereto and their respective heirs; legatees; devisees; executors; administrators; and permitted successors, assigns, sublessees. Nothing in this Section shall in any way alter the provisions of the Amended Lease restricting assignment or subletting.

7.9. Governing Law. This Work Letter shall be governed by, construed and enforced in accordance with the laws of the state in which the Premises are located, without regard to such state's conflict of law principles.

7.10. Power and Authority. Tenant guarantees, warrants and represents that the individual or individuals signing this Work Letter have the power, authority and legal capacity to sign this Work Letter on behalf of and to bind all entities, corporations, partnerships, limited liability companies, joint venturers or other organizations and entities on whose behalf such individual or individuals have signed.

7.11. Counterparts. This Work Letter may be executed in one or more counterparts, each of which, when taken together, shall constitute one and the same document.

7.12. Amendments; Waiver. No provision of this Work Letter may be modified, amended or supplemented except by an agreement in writing signed by Landlord and Tenant. The waiver by Landlord of any breach by Tenant of any term, covenant or condition herein contained shall not be deemed to be a waiver of any subsequent breach of the same or any other term, covenant or condition herein contained.

7.13. Waiver of Jury Trial. To the extent permitted by Legal Requirements, the parties waive trial by jury in any action, proceeding or counterclaim brought by the other party hereto related to matters arising out of or in any way connected with this Work Letter; the relationship between Landlord and Tenant; Tenant's use or occupancy of the Premises; or any claim of injury or damage related to this Work Letter or the Premises.

7.14. General. This Work Letter shall not apply to improvements performed in any additional premises added to the Premises at any time or from time to time, whether by any options under the Amended Lease or otherwise; or to any portion of the Premises or any additions to the Premises in the event of a renewal or extension of the original Term, whether by any options under the Amended Lease or otherwise, unless the Amended Lease or any

amendment or supplement to the Amended Lease expressly provides that such additional premises are to be delivered to Tenant in the same condition as the initial Premises.

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IN WITNESS WHEREOF, Landlord and Tenant have executed this Work Letter as a sealed Massachusetts instrument to be effective on the date first above written.

LANDLORD:
BMR-21 ERIE STREET LLC,
a Delaware limited liability company

By: /s/ Kevin M. Simonsen
Name: Kevin M. Simonsen
Title: VP, Real Estate Legal

TENANT:
METABOLIX, INC.,
a Delaware corporation

By: /s/ Joseph D. Hill
Name: Joseph Hill
Title: Chief Financial Officer

Exhibit 10.19.2

SECOND AMENDMENT OF LEASE

This SECOND AMENDMENT OF LEASE is entered into this _24th_ day of October, 2013, by and between **Fortune Wakefield, LLC**, having a mailing address at c/o Farley White Management Company, 155 Federal Street, Suite 1800, Boston, MA 02110 (hereinafter called "Landlord") and **Metabolix, Inc.**, having a mailing address at 650 Suffolk Street, Lowell, MA 01854 (hereinafter called "Tenant")

Witnesseth:

A. Landlord and Tenant entered into a certain lease dated March 30, 2007, as amended by a First Amendment of Lease dated February 29, 2012 (collectively, the "Lease") consisting of approximately 13,702 rentable square feet of office space on the first floor of 650 Suffolk Street (hereinafter the "Premises"), all as more particularly described therein.

B. Landlord and Tenant desire to amend the Lease in the manner set forth below.

1. The Lease Term is hereby extended and shall expire on May 31, 2020.

2. Effective as of June 1, 2014, Tenant shall pay Base Rent on the following schedule:

June 1, 2014 – May 31, 2015:	$212,381.00/annum; $17,698.42/month; $15.50/RSF
June 1, 2015 – May 31, 2016:	$219,232.00/annum; $18,269.33/month; $16.00/RSF
June 1, 2016 – May 31, 2017:	$226,083.00/annum; $18,840.25/month; $16.50/RSF
June 1, 2017 – May 31, 2018:	$232,934.00/annum; $19,411.17/month; $17.00/RSF
June 1, 2018 – May 31, 2019:	$239,785.00/annum; $19,982.08/month; $17.50/RSF
June 1, 2019 and thereafter:	$246,636.00/annum; $20,553.00/month; $18.00/RSF.

3. Effective as of June 1, 2014, Tenant's Operating Cost Base shall be actual Operating Expenses for Calendar Year 2013. Tenant's Real Estate Tax Base shall be actual Taxes for Fiscal Year 2013.

4. Upon Tenant's written request to Landlord, Landlord shall paint and carpet the Premises using building standard materials and at Landlord's sole expense, said request to be delivered from Tenant to Landlord no sooner than June 1, 2014 and no later than December 31, 2016. Landlord shall use commercially reasonable efforts to minimize interference with Tenant's operations. Landlord shall not be responsible for moving any furniture or personal property within the Premises.

5. *Lease Section 3.3: Option to Extend* shall be modified so that Tenant must give Landlord written notice of said election to extend prior to August 31, 2019, failing which the option becomes null and void.

6. Tenant shall have a one-time right to terminate the Lease (the "Termination Option") effective May 31, 2017 (the "Termination Date"), by giving written notice thereof to Landlord no later than August 31, 2016, provided that (a) at the time of giving such notice

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Tenant is or has not been in default in the performance or observation of any of the terms and provisions of this Lease and (b) Tenant makes a payment to Landlord along with the delivery of said termination notice, of a "termination fee" in the amount of $38,332.00.

Except as specifically amended by the terms of this Second Amendment of Lease, all of the terms, conditions, provisions of the Lease shall remain in full force and effect throughout the Lease Term. From and after the date hereof, the Lease and this Second Amendment of Lease shall be collectively referred to as the "Lease."

As of this date, the parties acknowledge that neither has a claim for damage or liability of any kind pursuant to this Lease, as amended, or at law or equity, and the parties hereby agree to release and hold each other harmless from and against all suits, liabilities, obligations or claims or any matters arising prior to this date.

WITNESS THE EXECUTION HEREOF, under seal, as of the date set for above, in any number of counterpart copies, each of which counterpart copy shall be deemed an original for all purposes.

LANDLORD: **FORTUNE WAKEFIELD, LLC**

/s/ John F. Power
By: John F. Power
Its: Manager

TENANT: **METABOLIX, INC.**

/s/ Joseph D. Hill
By: Joseph D. Hill
Its: Chief Financial Officer

Exhibit 10.24.1

Jack W. Schuler
28161 North Keith Drive
Lake Forest, Illinois 60045

February 4, 2014

Re: Confidential Disclosure Agreement dated February 6, 2013

Dear Jack:

We would like to extend the term of the above-referenced Confidential Disclosure Agreement between you and Metabolix, Inc. for an additional term of one (1) year ending on February 6, 2015. If you agree to this extension, please so indicate by signing below and return a copy of this letter to my attention.

METABOLIX, INC.

By: /s/ Sarah P. Cecil
Name: Sarah P. Cecil
Title: General Counsel

Accepted and agreed:

/s/ Jack W. Schuler
Jack W. Schuler

Date: 2/5/14

Metabolix | 21 Erie Street | Cambridge | MA | 02139 | USA
tel: 617 583 1700 | fax: 617 583 1767 | www.metabolix.com

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statement on Form S-3 (No. 333-193397) and S-8 (Nos. 333-138631, 333-145232, 333-155115, 333-157869, 333-165405, 333-172724, 333-181268 and 333-187589) of Metabolix, Inc. of our report dated March 28, 2014 relating to the financial statements, which appear in this Form 10-K.

/s/PricewaterhouseCoopers LLP

Boston, Massachusetts
March 28, 2014

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EXHIBIT 31.1

CERTIFICATIONS

I, Joseph Shaulson certify that:

1. I have reviewed this annual report on Form 10-K of Metabolix, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 28, 2014

/s/ JOSEPH SHAULSON

Name: Joseph Shaulson
Title: *President and Chief Executive Officer*
(Principal Executive Officer)

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EXHIBIT 31.2

CERTIFICATIONS

I, Joseph D. Hill, certify that:

1. I have reviewed this annual report on Form 10-K of Metabolix, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 28, 2014

/s/ JOSEPH D. HILL

Name: Joseph D. Hill
Title: *Chief Financial Officer*
(Principal Financial and Accounting Officer)

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EXHIBIT 32.1

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the annual report on Form 10-K of Metabolix, Inc. (the "Company") for the year ended December 31, 2013 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), we, Joseph Shaulson, President, Chief Executive Officer and Principal Executive Officer of the Company and Joseph D. Hill, Chief Financial Officer and Principal Financial and Accounting Officer of the Company, certify, pursuant to 18 U.S.C. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, to my knowledge that:

1. the Report fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934, as amended, and

2. the information in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

This certification is being provided pursuant to 18 U.S.C. 1350 and is not to be deemed a part of the Report, nor is it to be deemed to be "filed" for any purpose whatsoever.

METABOLIX, INC.

March 28, 2014 By: /s/ JOSEPH SHAULSON

Joseph Shaulson
President and Chief Executive Officer (Principal Executive Officer)

March 28, 2014 By: /s/ JOSEPH D. HILL

Joseph D. Hill
Chief Financial Officer (Principal Financial and Accounting Officer)

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