METABOLIX, INC.

FORM 10-K
(Annual Report)

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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, 2014 ;

or

☐ **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	**02139**
(Address of principal executive offices)	(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 Capital 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 ☐ 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 ☐ 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 ☐

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 ☐

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. ☒

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 ☐ Accelerated filer ☐ Non-accelerated filer ☐ Smaller reporting company ☒

(Do not check if a

smaller reporting company)

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of Act). Yes ☐ 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, 2014 was $21,285,791.

The number of shares outstanding of the registrant's common stock as of March 16, 2015 was 135,353,764.

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 2015 Annual Meeting of Stockholders to be held on May 28, 2015 are incorporated herein by reference into Part III of this report.

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For the Year Ended December 31, 2014
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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. 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 the Company's business plans and strategies; expectations for establishing pilot and commercial scale PHA biopolymer manufacturing; expected market demand and commercialization plans for the Company's PHA biopolymer products; expected future financial results and cash requirements; plans for obtaining additional funding; plans and expectations that depend on the Company's ability to continue as a going concern; and expectations for future research, product development and collaborations. 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 PHA performance biopolymers, risks related to the execution of our business plans and strategies, risks associated with the 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

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Metabolix is an advanced biomaterials company focused on delivering sustainable solutions to the plastics industry. 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 which, together with our technology, serves as a valuable foundation for our business and future industry collaborations.

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 our PHAs from pilot to industrial scale and we have sold our PHA products commercially since 2012.

Our targeted markets offer substantial opportunity for innovation and value creation. Our strategy is based on the performance and differentiation of our materials. We aim to address unmet needs of our customers and leverage the distinctive properties of our proprietary PHA biopolymers to improve critical product qualities of material systems and enable our customers to enhance the value of their products and/or achieve cost savings through their value chains. As such, we are positioning our biopolymers as advanced specialty materials that offer a broad and attractive range of product and processing properties compared to other bioplastics or performance additives. We believe that a substantial global market opportunity exists to develop and commercialize our advanced biopolymer product technology.

In 2014, we conducted a comprehensive strategic review of our business and decided to focus the Company's resources on commercializing PHA performance biopolymers. This has resulted in specifically targeting our research, development and commercial resources on the use of our Mirel ® PHA biopolymers as performance additives in a range of applications where they can improve performance and/or reduce cost in other material systems such as polyvinyl chloride ("PVC") and polylactic acid ("PLA"). We are also targeting applications where the performance, biodegradability, biobased content and other attributes of our PHA biopolymers provide unique functional advantages, such as biodegradation, required by such applications, including PHA latex and other PHA barrier coatings for paper and cardboard, PHA micropowders and PHA resins for films and molded articles.

In connection with this more focused business strategy, we decided in 2014 to discontinue our operations in Germany and to suspend work in a program that was developing processes for producing biobased chemicals from PHAs, and we are planning to spin out our crop science program - a research program focused on crop yield improvement and the production of PHAs in crops using agricultural biotechnology.

Based on this strategic shift, in October 2014 we sold substantially all of the assets of our wholly-owned German subsidiary, Metabolix GmbH, to AKRO-PLASTIC GmbH ("Akro"), a German manufacturer of engineering plastics compounds. Akro acquired our Mvera ™ B5010 and B5011 products for compostable film, as well as certain inventory, certain contracts, and the Mvera ™ trademark. Akro also took over the Metabolix GmbH employees and office space. The purpose of this sale was to simplify our business structure and focus resources on the success of our core biopolymers business based on PHA performance additives.

In late 2014, we decided to implement a plan to significantly increase output of Mirel ® PHA biopolymers at our contracted pilot manufacturing facilities to a nameplate capacity of 50,000 pounds per month. The initial focus of this manufacturing plan will be production of the Company's a-PHA (amorphous, low Tg rubber) biopolymer for use in ongoing development activities based on this unique PHA product. This new PHA material, together with existing inventory, is intended to support both market development and initial customer conversions as we continue to build our biopolymers business based on PHA performance additives. We also intend to continue evaluating and developing production expansion options as we bring on commercial scale customers for our PHA biopolymers.

We are focused on building our customer base to support the development of our business. To that end, we have intensified our efforts in product and application development and are continuing to enhance our capabilities in this area. We are also working closely with customers across a range of applications to understand the processing and performance profiles for their products, and we have developed a process to work with customers from initial data demonstration through product and process validation, larger scale trials and ultimately purchasing decisions. This approach is integral to our additives-based strategy, where the market opportunities are driven by the important value-adding role our biopolymers can play as components of other material systems. This is a critical area of focus for us and our success depends on working effectively with customers to identify uses and applications for our PHA biopolymers that substantiate the commercial potential for our products.

On August 22, 2014, the Company completed a private placement of equity securities. Proceeds received from the private placement were approximately $25 million, net of issuance costs of $86 thousand. This was an important financing for the Company. However, even with this financing and anticipated reduced cash usage in 2015 as a result of the discontinuation of our German operations, restructuring of our U.S. organization and other cost-containment measures, our present capital resources are not sufficient to fund our planned operations for a twelve month period. We will require additional funding during 2015 to continue our operations and support our capital needs. The timing, structure and vehicles for obtaining future financing are under consideration, but there can be no assurance that future financing efforts will be successful.. We intend to use the proceeds of any future financings to continue developing our specialty biopolymers business as the foundation for longer-range commercial scale plans and the future growth of our business. Failure to receive additional funding in 2015 may 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.

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 to support manufacturing of our PHA biopolymers. In particular, we believe 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 continuing to develop key capabilities in the areas of biopolymer product development and customer focused applications development and 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 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. We believe that we have advanced capabilities based on over 20 years of development, taking early stage gene/pathway discovery through the entire development and scale-up process and final implementation of that technology at commercial scale using robust industrial microbial production systems.

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 for Biopolymer Recovery

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. 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.

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 processing methods. We are continuing to work with customers and channel partners to optimize our polymers and polymer formulations as we commercialize our products in target applications.

In sum, we believe we have successfully integrated capabilities in biology, genetics, fermentation process engineering, chemical engineering and polymer science to provide high value biobased and biodegradable polymer solutions for customers. We believe this integrated set of capabilities will be a source of competitive advantage as our business develops.

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. To achieve this goal, we are developing and commercializing biopolymers in a range of applications. We believe this will provide an attractive base of commercial opportunities for the Company, creating value for our business and our customers and generating leading intellectual property positions in the field.

Key elements of our strategy include:

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 and processing capabilities 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, property modifiers or processing aids for existing polymer systems 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. We are also targeting applications where the performance, biodegradability, biobased content and other attributes of our PHA biopolymers provide unique functional advantages, such as biodegradation, required by such applications, including PHA latex and other PHA barrier coatings for paper and cardboard, PHA micropowders and PHA resins for films and molded articles.

Managing Existing Inventory. We expect to work closely with core customers to provide them with access to existing inventory acquired from Telles, our former joint venture with Archer Daniels Midland Company, as well as newly produced materials from our pilot facilities, until a commercial scale supply chain is established. In the near term, we plan to focus our existing inventory and pilot material on ongoing product development activities and initial customer conversions in targeted, high value applications for our PHA biopolymers.

Matching Manufacturing Capacity to Customer Demand. In 2014, we produced a limited amount of new material from our pilot facilities. We intend to expand to a nameplate pilot capacity of 50,000 pounds per month and will continue to evaluate and develop production expansion options as we bring on commercial scale customers for our PHA biopolymers. In that regard, we continue to study a number of commercial scale PHA manufacturing options as this is likely to be a key element of the supply chain necessary to support our longer-term business strategy.

Market Positioning and Technical Support. We have focused our technical and business development team on support of existing customers and development of the prospective customer base for our PHA biopolymers. We are positioning our biopolymers as premium priced, specialty materials that are environmentally attractive alternatives to petroleum-based polymers and lower performance bioplastics. These efforts are directed at managing a pipeline of customers across a range of applications, and we are working to build strong customer relationships and committed demand for our PHA biopolymers as we establish the supply chain required to support the demand.

Microbial Research and Process Development. We have identified and continue to develop opportunities to improve our PHA strains and our fermentation and recovery processes. We believe significant reductions in the operating and capital cost of PHA production, as well as meaningful advances in PHA biopolymer properties and performance, can be achieved as we successfully exploit these opportunities. We believe our technology is robust and we expect to be able to successfully transfer improvements from microbial research and process development to commercial scale production.

Leading 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. We continue to extend this patent estate within our core business and around other commercial opportunities in the areas of biobased plastics, chemicals and crops. We have licensed our technology, and where appropriate, we will continue to explore opportunities to license our technology to others as a way to advance our business strategy or capitalize on our technology in fields outside our targeted areas of interest.

Advancing Crop Biotechnology. We believe we are pioneering the technical process of introducing multigene traits and enhanced carbon capture capability into plants. Historically, our focus has been on the production of plastics and chemical intermediates from PHAs produced directly in plants. Based on recent advances, we believe our approach to introducing multigene traits and carbon capture technology into plants has the potential to significantly increase the yield in food, feed and biomass crops. We are in the process of capturing intellectual property gained in our crop science program and are planning to spin out this activity into a separately funded entity focused entirely on further development and commercialization of these technologies.

Market Opportunity

Our target markets and product applications offer substantial opportunity for innovation and value creation. In certain applications, we can position our PHA biopolymers as biobased performance additives that contribute biocontent, while improving the overall performance of material systems. In other applications, our PHA biopolymers can be used to replace conventional plastics where there are market drivers accelerating the move to renewable and biodegradable materials which have the potential to reduce the use of petroleum-based feedstocks and decrease plastic pollution in the environment. More specifically, we are targeting our resources on the use of our PHA biopolymers as performance additives in a range of applications where they can improve performance and or reduce cost in other material systems such as PVC and PLA. We are also targeting applications where the performance, biodegradability, biobased content and other attributes of our PHA biopolymers provide unique functional advantages, such as biodegradation, required by such applications, including PHA latex and other PHA barrier coatings for paper and cardboard, PHA micropowders and PHA resins for films and molded articles.

The Plastics Market

The world's annual consumption of plastic materials has increased from around 5 million metric 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 growth in the plastics market. A majority of these plastics are made from fossil feedstocks, including crude oil and natural gas.

According to Global Industry Analysts, Inc., the global market for PVC is approximately $70 billion based on an estimated 38 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 used in PVC formulations (typically 20-40% of the formulation) to improve processing, plasticization and performance of PVC. According to a study on additives conducted by Freedonia , the total additives market for PVC is approximately 7 million metric tons per annum. Plasticizer represent approximately 72% of this market. Our market focus is on the property modifier additives segment that represents approximately 700,000 metric tons or approximately $3.5 billion annually according to the Freedonia study.

It is well established that most fossil feedstock-based plastics do not biodegrade in the environment. Instead, they congest landfills and pollute the land, waterways and 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 225,000 tons of plastic waste ends up in the world's oceans. We believe our PHA biopolymers, which have excellent biodegradation profiles in composting, soil and marine environments, can contribute to new and alternative waste management solutions.

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 the use and growth of bioplastics. According to the Freedonia Group, global demand for biobased and biodegradable plastics will grow 19 percent annually to 950,000 metric tons in 2017. 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. 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. We believe our PHA performance additives for PLA can improve the performance of PLA in a range of potential applications, thereby expanding the market potential for PLA.

Biopolymers Platform

Overview

We are focused on building a commercially successful specialty polymers business, with attractive margins, based on the unique properties of our PHA biopolymers. We are targeting market opportunities driven by the important value-adding role our biopolymers can play as components of other material systems. We are intensifying our efforts in product and application development and working closely with customers across a range of applications at various stages in the development process, from initial data demonstration, through product and process validation, larger scale trials and ultimately purchase decisions. While we work to execute these elements of our strategy, we are managing our existing inventory of PHA biopolymers and our production of new pilot materials to support these development and commercialization efforts, and we plan to continue evaluating longer-range options for larger-scale production as we bring on commercial scale customers for our PHA biopolymers.

Former Alliance with Archer Daniels Midland Company

Mirel biopolymers were produced successfully at industrial scale for two years under the Telles joint venture with Archer Daniels Midland Company ("ADM") that was in effect from 2004 through 2011. The product was produced at very high quality and in a targeted range of grades suited to different customer uses. We marketed Mirel and Mvera biopolymers for more than two years on behalf of Telles. 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 are currently focusing our marketing and product development activities on providing high value material to customers in select key application spaces.

Targeted Application Spaces for Metabolix Biopolymers

Although we believe there are significant opportunities across many markets and applications, we are initially focusing our commercialization efforts on select key application spaces where we think the performance, biodegradability and biobased content of our PHA biopolymers is a good fit. These are:

- Performance modifiers and processing aids for PVC
- Performance modifiers for PLA
- Barrier coatings for paper and cardboard
- Marine biodegradable micropowders
- Functional biodegradation (e.g., resins/compounds for biodegradable films and molded articles)

We believe these application spaces have unmet needs that can be addressed with our PHA materials. Our biopolymers can enable improved performance qualities and/or reduced cost when used as an additive and blended with other polymers such as PVC and PLA. In addition, certain applications have the need or a preference 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 soil or marine biodegradation, composting or anaerobic digestion. We are engaged in focused product and application development activities in these segments. We are working with potential customers to determine their specific needs and develop end-use markets, and we are in the process of qualifying our materials for certain customer applications.

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 plastic with diverse uses ranging from construction materials to medical applications and an estimated global demand of approximately

38 million metric tons per year. Compounded PVC products are typically formulated with about 20-40% performance additives, which are used to improve the processability and performance of the PVC for its end-use applications.

We are developing biobased polymeric modifiers for rigid, 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. For example, we have studies that show our PHA 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 biobased plasticizer. We are now working with customers to identify suitable applications for the technology, which could lead to broader addressable market opportunities for our materials beyond those that focus on biodegradation.

We are also working with customers to develop applications that use our PHA performance additives to upgrade the physical properties, processing, and value of PVC recyclate in the production of construction materials containing recycled PVC in place of virgin PVC.

In addition to our efforts in PVC, we are developing PHA polymeric modifiers suitable for enhancing the performance of other polymers. Polylactic acid (PLA) is the leading biobased, compostable polyester on the market today and is used in application areas such as food and consumer product packaging, food service ware, film and textiles. We have conducted development work around toughening and enhanced ductility of PLA. The ability to address these inherent weaknesses in PLA could significantly expand the application space for this important bioplastic, and we have shown that our Mirel a-PHA rubber modifiers can improve PLA performance while retaining the clarity, biobased properties and compostability of the resulting material.

From our initial work in PVC and PLA modification, we believe Metabolix has the potential over time to develop a family of polymeric property modifiers that have improved functionality compared to current fossil derived materials, that can be used in a range of material systems including PVC and PLA and that are both biobased and biodegradable.

Barrier Coatings for Paper and Cardboard

There is a significant need for innovative barrier coatings for paper and cardboard. PHA barrier coatings being developed by Metabolix are derived from renewable raw materials and, like our other PHA products, are uniquely compostable, marine biodegradable, and anaerobically digestible and perform comparably to the polyethylene coatings commonly used today. We have generated data showing that our development grade biobased latex coatings based on PHA possess excellent water and grease barrier properties and are compatible with the re-pulping operations typically used to recycle paper and corrugated cardboard. We are continuing to develop technology to apply PHA-based barrier coatings to paper and cardboard based on the promising market potential in this area. If the developments in this area are successful, potential applications could range from repulpable PHA coated corrugated cardboard to PHA coated paperstock for food service items and PHA coated cupstock for hot beverages, among others.

Marine Biodegradable Micropowders

Legislation aimed at reducing plastic pollution is beginning to emerge in the U.S. and Europe and is catalyzing the development of environmentally-friendly alternatives to plastic microbeads currently used in many personal care and cosmetic products. We are developing PHA-based alternatives to replace the non-biodegradable plastics used in these applications with PHA micropowders that are both biobased and marine biodegradable. In 2015 we entered into a global, exclusive commercial and technology alliance with Honeywell International, Inc. ("Honeywell") to offer new marine biodegradable biopolymers for use in cosmetics and personal care products. Through the alliance, our PHA biopolymers will be developed as part of Honeywell’s line of personal care additives to help address pending legislation focused on replacing synthetic, non-biodegradable microbeads, as well as global demand for biobased and biodegradable alternatives.

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 polymers to provide customers with customized product performance and biodegradation profiles.

The soil biodegradability profile of PHA makes our products uniquely suited for resins used to produce biodegradable films and parts for horticultural and agricultural uses. Applications such as plant pots, vine clips, sod netting and agricultural film have a strong need for soil biodegradability like that offered by Mirel biopolymers. In these applications, the natural biodegradation process for our PHA biopolymers in the soil can provide a sustainable alternative to conventional plastics and save labor and other costs related to their disposal.

The marine biodegradability profile of Mirel biopolymers is unmatched in the industry. Mirel biopolymer resins biodegrade in the marine environment due to microbial activity, which makes them particularly suitable for the production of marine and aquatic biodegradable films and parts. 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 biodegradation is a key attribute such as erosion control and shoreline restoration.

Metabolix has worked and expects to continue working with customers on a variety of other applications where biodegradation of the polymer is a performance requirement. We have also worked with customers to develop pond water and aquarium water denitrification treatment systems based on the biodegradation and microbial activity of our biopolymers.

The Value Proposition for 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 cost savings through their value chain.

As such, we are positioning our Mirel biopolymers as specialty materials that offer a broad and attractive range of performance and processing properties compared to other bioplastics and performance additives. Our Mirel biopolymers can 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. PVC) or other bioplastics (e.g., PLA) and/or to deliver the required biodegradation profile of an end use application.

We believe our Mirel biopolymers can be differentiated and offer unique benefits in end use applications because of 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 microbial activity in a wide variety of conditions, including home and industrial compost systems, soil, anaerobic environments such as 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” will only degrade under certain industrial composting conditions. Mirel biopolymers will also degrade in home composters, soil and marine or fresh water environments.

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. Mirel biopolymers possess a particularly broad range of physical properties, which makes them suitable for applications requiring hard/stiff plastics as well as those requiring soft/flexible plastics.

Processability. Our PHA biopolymers can be processed in many types of existing conventional polymer conversion processes typically used for petroleum-based plastic, which makes them suitable for applications requiring molded parts, films, coatings, fibers or non-wovens, among others.

Upper Service Temperature. Mirel biopolymers will withstand temperatures in excess of 100 ^{0}C, i.e., the boiling point of water, an important threshold. Some formulations of Mirel biopolymers can withstand temperatures up to 130 ^{0}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 feature distinguishing Mirel biopolymers from many other biodegradable polymers where the primary mechanism of degradation 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 the needs of our customers and their end use applications.

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. 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.

Regulatory Requirements

Some applications for which Mirel biopolymers may be suitable, such as food packaging, PHA-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 products, including Mirel M2100, M2200, M4100, F1005, F1006 and F3002, have been cleared for use in alcoholic (containing up to 8% alcohol) and non-alcoholic food contact applications (see FCN1119). The conditions of use range from frozen food storage to hot filled or pasteurized 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 or sustainability is an emerging business opportunity. We believe that producers are positioning products as environmentally responsible or environmentally preferable to gain a commercial advantage as consumer preferences shift in this direction. We believe that by

promoting the use of Mirel branded PHA biopolymers or by co-branding products that contain our PHA biopolymers with the Mirel trademark, Metabolix and its customers will be able to jointly promote environmental responsibility.

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. Those mandates sometime include exceptions for materials that meet biobased content or biodegradability requirements. We believe that Metabolix biopolymers can generally meet the requirements for such exceptions, and this can 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 regulatory mandates. One specific area where we believe there may an opportunity driven by such regulatory considerations is in biodegradable alternatives to synthetic plastic microbeads/micropowders used in personal care and cosmetic products. Our marine biodegradable PHA microbeads/micropowders may represent an attractive alternative for brand owners, and we entered into an exclusive technical and commercial alliance with Honeywell in 2015 to pursue this opportunity. We believe that as awareness of practical and affordable biobased and biodegradable alternatives grows, the pace of regulatory change, and adoption of our products, may accelerate.

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 production of 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 based plastics 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, biobased 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 PHA biopolymers offer a broad range of properties and processing options, and can address a large portion of the opportunities for environmentally attractive yet functionally equivalent alternatives to conventional petroleum-based plastics. Unlike PLA and most starch-based composite biodegradables, Mirel biopolymers can:

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

Companies active in PHA plastics include Meredian, Kaneka, Tianan, Tianjin Green Biomaterials, and EcoMann. The key players in PLA and starch-based biodegradable plastics include NatureWorks, Corbion, Mitsui Chemical, Teijin, Novamont and Biome. Corbion, the leading producer of lactic acid, has announced its intention to forward integrate into PLA. 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	Petroleum Based	Biobased
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	Numerous companies supplying conventional petroleum-based plastics (e.g., polypropylene, polyethylene, PVC)	Dupont (Sorona ™) Dow Chemical (Soybean Polyurethanes) Arkema (Nylon 11) Braskem (polyethylene)

Status of Chemicals Platform and Crop Science Program

In 2014, we suspended work in our biobased chemicals program. In this program, we were developing ways to use of our PHA fermentation technology to produce C3 and C4 chemicals from biobased PHA precursors, as opposed to the petrochemical feedstocks that are used to produce most industrial chemicals today. Although we believe that developing and commercializing biobased C3 and C4 chemicals via this route could represent an attractive future opportunity for our technology, we have suspended further development consistent with our strategic decision to focus on our PHA performance biopolymers business.

Metabolix has been conducting a research program in crop science for more than 13 years with the intent to harness the renewable nature of plants to produce renewable bioplastics, chemicals and bioenergy from crops. Historically, the focal point of our crop technology efforts has been around PHB, the simplest member of the 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 attributes that allow potential use in other applications, such as the production of chemical intermediates, as value-added animal feeds or to produce energy. In our crop science program we have been 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 applications.

Metabolix has secured several grants to support its crop science research program. 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. Crotonic acid can be converted to a number of larger volume chemicals, including butanol, acrylic acid and propylene, using traditional chemistry. Metabolix was awarded additional grants in 2012 and 2013 for leading-edge crop research targeting multi-gene expression and transformation of plants including important biofuel and food crops. In 2014, we continued to conduct crop research under grants, focused primarily on increasing PHB production in switchgrass and developing a thermal conversion process to recover crotonic acid.

Our crop science program has been a technically challenging long term effort. As we succeeded in increasing the levels of PHB produced in plants, we saw that this increase in PHB production typically resulted in impaired plant growth. This result is not unexpected, as we were diverting a significant fraction of the carbon fixed by the plants into the PHB, which represents a new carbon sink. Given these observations and our longer-term goal to develop commercially viable PHB-producing switchgrass and camelina, we began developing new genetic and informatics tools and capturing intellectual property around enhancing the photosynthetic capacity of plants. Early success in this area led us to expand our thinking, as fixing more carbon through enhanced photosynthesis is core to improved crop yield. Using the computational methods and technology developed in our PHB-focused crop science program we have observed increased plant photosynthesis, leading to increases in biomass, seed yield, starch and oil content. Although this research is at an early stage, we believe it may have applicability to a range of food, feed and biomass crops where there is a focus on improving crop yield. In connection with our strategic decision to focus the Company's resources on our PHA performance biopolymers business, we are seeking to spin out our crops program into a separately funded entity focused entirely on further development and commercialization of this technology. However, there can be no assurance that we will be successful in establishing or maintaining suitable business arrangements for the spin out of this activity.

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 340 issued patents and approximately 90 patent applications worldwide, and we have licensed additional issued patents and patent applications from third parties. 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. 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 2015 and 2032.

In 2014, we filed 27 patent applications worldwide including applications for eight 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 24 patent applications in 2014, eight in the U.S. and 16 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 registered U.S. trademarks include *Metabolix* , the Metabolix four-leaf design, *Telles* , *Mirel* , the Mirel heart-leaf design, and *Bio-Industrial Evolution* . These marks and certain other trademarks have also been registered in selected foreign countries.

Employees

In October 2014, we implemented a restructuring of our U.S. organization to reflect our more narrow strategic focus on PHA performance biopolymers and to modify staffing to the level we believe necessary to support successful implementation of our business strategy. The scope of the restructuring also reflected our decision to suspend work in our chemicals program. In connection with our more focused business strategy, we also discontinued our operations in Germany.

As of December 31, 2014, we had 68 full-time employees. Of those employees, 48 were in research and development and 20 were in sales, marketing and administration. Among our research staff, 15 hold Ph.D.'s and 25 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 relationship with our employees to be good.

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 and cash equivalents of $20.0 million at December 31, 2014. 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 expect that reductions in cash usage in 2015 due to the discontinuation of our German operations, the restructuring of our U.S. organization and other cost-containment measures will be largely offset by increased biopolymer production costs. As a result, we anticipate cash usage during 2015 of approximately $23.0 million, including approximately $1.0 million in capital costs related to the expansion of pilot manufacturing capacity and assuming continued funding of our crop science program for the full year. While we were successful in raising $25.0 million during the third quarter of 2014, we will require additional funding during 2015 to continue our operations and support our capital needs. The timing, structure and vehicles for obtaining future financing are under consideration, but there can be no assurance that future financing efforts will be successful.

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 expansion of pilot manufacturing or the establishment and start-up of commercial manufacturing operations 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. If we issue equity or debt securities to raise additional funds, (i) we may incur fees associated with such issuance, (ii) our existing stockholders will experience dilution from the issuance of new equity securities, (iii) we may incur ongoing interest expense and be required to grant a security interest in our assets in connection with any debt issuance, and (iv) the new equity or debt securities may have rights, preferences and privileges senior to those of our existing stockholders. In addition, utilization of our net operating loss and research and development credit carryforwards may be subject to significant annual limitations under Section 382 of the Internal Revenue Code of 1986 due to ownership changes resulting from future equity financing transactions.

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 us.

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, 2014. At

December 31, 2014, our accumulated deficit was approximately $302 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, 2014 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. We expect that it will take time for our production 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.

Risks Relating to our Biopolymers Business

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 cannot assure you that we will be able to successfully produce biopolymers in a timely or economical manner, or at all.

We do not currently have a facility for commercial scale production of biopolymers. We are undertaking an expansion of our pilot scale production facility while we continue to evaluate various larger scale 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 is likely to be time-consuming and expensive. 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 or government funding sources to finance and/or construct commercial manufacturing facilities for biopolymer production.

Our future biopolymer production 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.

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. 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. 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.

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. There are numerous companies and

trade associations that aggressively oppose these policies. The phasing out or elimination of these or similar laws and regulations, or the adoption of laws and regulations that are so broadly written as to ban our products along with the targeted non-biodegradable plastic materials, could 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 from genetically engineered feedstocks through fermentation using genetically engineered microbes, and our crop science program is developing technologies used for the genetic engineering of plants. 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 or genetically engineered feedstocks. 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. 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 may not be competitive. A material decrease in the cost of conventional petroleum-based plastics 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 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. 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.

Other Business Risks

We may not be successful in spinning out our crop science program.

We are at an early stage of developing the technology and processes used in our crop science program. The application of our technology to enhance photosynthetic efficiency of crops is similarly at an early stage of development. Completion of development work will require a significant investment of both time and money, if it can be completed at all. In order to focus our efforts on our biopolymers business, we are planning to spin out the crop science program into a separately funded entity focused on the development and commercialization of our crop technologies. However, there can be no assurance that we will be successful in identifying a third party interested in funding and commercializing the program on acceptable terms, if at all. If we are not successful in spinning out the crops platform, we may incur substantial costs to either continue or wind down that operation.

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

Patent protection for our products is important and uncertain.

Our commercial success may depend in part on our obtaining and maintaining patent protection for our technologies in the United States and other jurisdictions, as well as successfully enforcing and defending this intellectual property against third-party challenges. If we are not able to obtain patent coverage or defend the patent protection for 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. Our issued patents have expiration dates ranging from 2015 through 2032.

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. 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. There will be many countries in which we will choose not to file or maintain patents because of the costs involved. Competitors may also design around our technology or develop competing technologies.

Additionally, any issued patents owned by or licensed to us now or in the future may be challenged, invalidated, or circumvented. We could incur substantial costs to bring suits or other proceedings in which we may assert our patent rights. An unfavorable outcome of any such litigation could have a material adverse effect on our business and results of operations.

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. We could incur substantial costs to challenge third party patents. 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 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. Alternatively, we may seek licenses to such third party intellectual property. However, we may be unable to obtain these licenses on acceptable terms, if at all. 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. Litigating a claim that a third party had illegally obtained and was using our trade secrets would be expensive and time consuming, and the outcome would be unpredictable. Moreover, if our competitors independently develop similar knowledge, methods and know-how, it will be 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, dispose of assets or make capital expenditures. The Company may also incur ongoing interest expense and be required to grant a security interest in Company assets in connection with any debt issuance. 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 issuance and/or sale of our common stock or 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;
- short-selling or similar activities by third parties; 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. 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, including those listed in this "Risk Factors" section, 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.

Provisions in our certificate of incorporation and by-laws and Delaware law 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.

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.

Concentration of ownership among our existing officers, directors and principal stockholders may prevent other stockholders from influencing significant corporate decisions and depress our stock price.

Based on the number of shares outstanding as of December 31, 2014, our officers, directors and stockholders who hold at least 5% of our stock together beneficially own approximately 69.9% of our outstanding common stock. If these officers, directors, and principal stockholders or a group of our principal stockholders act together, they will be able to exert a significant degree of influence over our management and affairs and control matters requiring stockholder approval, including the election of directors and approval of mergers or other business combination transactions. The interests of this concentration of ownership may not always coincide with our interests or the interests of other stockholders. For instance, officers, directors, and principal stockholders, acting together, could cause us to enter into transactions or agreements that we would not otherwise consider. Similarly, this concentration of ownership may have the effect of delaying or preventing a change in control of our company otherwise favored by our other stockholders. As of December 31, 2014, Jack W. Schuler, William P. Scully and Larry N. Feinberg beneficially owned approximately 38.3%, 13.0% and 5.9% of our common stock, respectively.

Failure to comply with Nasdaq listing requirements could adversely affect the liquidity of our Common Stock.

The Company does not currently satisfy the minimum bid price requirement for continued listing, as set forth in Nasdaq Listing Rule 5450(a)(1). In order to regain compliance, the minimum bid price per share of the Company's common stock must be at least $1.00 for at least ten consecutive business days prior to July 6, 2015. If the Company fails to regain compliance during this grace period, the Company's common stock will be subject to delisting by Nasdaq. Delisting could adversely affect the liquidity of our Common Stock. We have notified Nasdaq of our intention to cure the minimum bid price deficiency during the grace period by effecting a reverse stock split if necessary. Our stockholders have authorized our Board of Directors to effect a reverse stock split of all of our outstanding Common Stock at a ratio of not less than 1-for-2 and not more than 1-for-10, with the Board having the discretion as to whether or not the reverse split is to be effected, and with the exact ratio of any reverse split to be set at a whole number within the above range as determined by our Board in its sole discretion, provided that the reverse split must be effected, if at all, no later than December 31, 2015. However, we cannot assure you that a reverse stock split, if effected, will increase our stock price and have the desired effect of maintaining compliance with Nasdaq rules. The liquidity of our capital stock may even be harmed by a reverse stock split because of the reduced number of shares that would be outstanding after the reverse stock split, particularly if the stock price does not increase as a result of the reverse stock split.

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 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 July 2015.

ITEM 3. LEGAL PROCEEDINGS

From time to time, the Company may be subject to legal proceedings and claims in the ordinary course of business. The Company is not currently aware of any such 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 Capital Market under the symbol "MBLX." Before January 7, 2015, our common stock was traded on the NASDAQ Global Market. The following table sets forth, for the periods indicated, the high and low sales prices for our common stock, as reported by NASDAQ, for our two most recent fiscal years:

	Common Stock Price			
	2014		2013	
	High	Low	High	Low
First Quarter	$ 1.67	$ 1.10	$ 2.58	$ 1.31
Second Quarter	1.32	0.75	2.33	1.35
Third Quarter	1.51	0.36	1.70	1.20
Fourth Quarter	0.93	0.25	1.94	0.75

The close price of our common stock, as reported by the NASDAQ Capital Market, was $0.75 on March 16, 2015.

Stockholders

As of March 16, 2015, there were 135,353,764 shares of our common stock outstanding held by 78 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 9, 2014, the Company issued 87,500 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.

Issuer Purchases of Equity Securities

During the quarter ended December 31, 2014, there were no repurchases made by us or on our behalf, or by any "affiliated purchasers," of shares of our common stock.

ITEM 6. SELECTED CONSOLIDATED FINANCIAL DATA

The selected consolidated statement of operations data for the years ended December 31, 2014, 2013, and 2012 and balance sheet data as of December 31, 2014 and 2013 have been derived from our audited consolidated financial statements and related notes, which are included elsewhere in this report. The selected consolidated statement of operations data for the years ended December 31, 2011 and 2010 and the balance sheet data as of December 31, 2012, 2011 and 2010 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,				
	2014	2013	2012	2011	2010
	(In thousands, except share and per share data)				
Statement of operations data:					
Total revenue	$ 2,800	$ 3,778	$ 41,381 (1)	$ 1,425	$ 448
Costs and expenses:					
Cost of product revenue	1,482	1,908	1,030	—	—
Research and development expenses	17,342	18,802	23,177	24,445	23,673
Selling, general and administrative expenses	10,805	11,608	13,245	15,841	15,714
Total costs and expenses	29,629	32,318	37,452	40,286	39,387
Income (loss) from continuing operations	(26,829)	(28,540)	3,929	(38,861)	(38,939)
Other income, net	61	(4)	27	76	136
Net income (loss) from continuing operations	$ (26,768)	$ (28,544)	$ 3,956	$ (38,785)	$ (38,803)
Loss from discontinued operations (2)	(1,878)	(1,962)	(326)	—	—
Loss from write down of assets held for sale	(888)	—	—	—	—
Total loss from discontinued operations	$ (2,766)	$ (1,962)	$ (326)	$ —	$ —
Net income (loss)	$ (29,534)	$ (30,506)	$ 3,630	$ (38,785)	$ (38,803)
Net income (loss) from continuing operations, basic and diluted	$ (0.44)	$ (0.83)	$ 0.12	$ (1.24)	$ (1.45)
Net income (loss) from discontinued operations, basic and diluted	$ (0.04)	$ (0.05)	$ (0.01)	$ —	$ —
Net income (loss) per share	$ (0.48)	$ (0.88)	$ 0.11	$ (1.24)	$ (1.45)
Number of shares used in per share calculations, basic	61,455,063	34,471,301	34,217,298	31,257,376	26,773,755
Number of shares used in per share calculations, diluted	61,455,063	34,471,301	34,279,779	31,257,376	26,773,755

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

(2) In 2014, we discontinued our German operations that had commenced in 2012. Our financial statements have been adjusted to reflect the discontinued operations for all comparable years since 2012. (See Note 17)

	Year ended December 31,				
	2014	2013	2012	2011	2010
			(In thousands)		
Balance Sheet Information:					
Cash, cash equivalents and short-term investments	$ 20,046	$ 19,209	$ 43,773	$ 76,855	$ 61,574
Total assets	23,135	26,738	53,510	82,912	66,771
Long-term deferred revenue	—	—	—	35,944	36,207
Other long-term obligations	150	145	186	340	493
Total liabilities	4,339	6,340	6,170	43,449	43,095
Accumulated deficit	(302,072)	(272,538)	(242,032)	(245,662)	(206,877)
Total stockholders' equity	18,796	20,398	47,340	39,463	23,676

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 advanced biomaterials company focused on delivering sustainable solutions to the plastics industry. 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 which, together with our technology, serves as a valuable foundation for our business and future industry collaborations.

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 our PHAs from pilot to industrial scale and we have sold our PHA products commercially since 2012.

Our targeted markets offer substantial opportunity for innovation and value creation. Our strategy is based on the performance and differentiation of our materials. We aim to address unmet needs of our customers and leverage the distinctive properties of our proprietary PHA biopolymers to improve critical product qualities of material systems and enable our customers to enhance the value of their products and/or achieve cost savings through their value chains. As such, we are positioning our biopolymers as advanced specialty materials that offer a broad and attractive range of product and processing properties compared to other bioplastics or performance additives. We believe that a substantial global market opportunity exists to develop and commercialize our advanced biopolymer product technology.

In 2014, we conducted a comprehensive strategic review of our business and decided to focus the Company’s resources on commercializing PHA performance biopolymers. This has resulted in specifically targeting our research, development and commercial resources on the use of our Mirel ® PHA biopolymers as performance additives in a range of applications where they can improve performance and/or reduce cost in other material systems such as PVC and PLA. We are also targeting applications where the performance, biodegradability, biobased content and other attributes of our PHA biopolymers provide unique functional advantages, such as biodegradation, required by such applications, including PHA latex and other PHA barrier coatings for paper and cardboard, PHA micropowders and PHA resins for films and molded articles.

In connection with this more focused business strategy, we decided in 2014 to discontinue our operations in Germany and to suspend work in a program that was developing processes for producing biobased chemicals from PHAs, and we are planning to spin out our crop science program--research program focused on crop yield improvement and the production of PHAs in crops using agricultural biotechnology.

Based on this strategic shift, in October 2014 we sold substantially all of the assets of our wholly-owned German subsidiary, Metabolix GmbH, to AKRO-PLASTIC GmbH (“Akro”), a German manufacturer of engineering plastics compounds. Akro acquired our Mvera ™ B5010 and B5011 products for compostable film, as well as certain inventory, certain contracts, and the Mvera ™ trademark. Akro also took over the Metabolix GmbH employees and office space. The purpose of this sale was to simplify our business structure and focus resources on the success of our core biopolymers business based on PHA performance additives.

In late 2014, we decided to implement a plan to significantly increase output of Mirel ® PHA biopolymers at our contracted pilot manufacturing facilities to a nameplate capacity of 50,000 pounds per month. The initial focus of this manufacturing plan will be production of the Company's a-PHA (amorphous, low Tg rubber) biopolymer for use in ongoing development activities based on this unique PHA product. This new PHA material, together with existing inventory, is intended to support both market development and initial customer conversions as we continue working to build our biopolymers business based on PHA performance additives. We also intend to continue evaluating and developing production expansion options as we bring on commercial scale customers for our PHA biopolymers.

We are focused on building our customer base to support the development of our business. To that end, we have intensified our efforts in product and application development and are continuing to enhance our capabilities in this area. We are also working closely with customers across a range of applications to understand the processing and performance profiles for their products, and have developed a process to work with customers from initial data demonstration through product and process validation, larger scale trials and ultimately purchasing decisions. This approach is integral to our additives-based strategy, where the market opportunities are driven by the important value-adding role our biopolymers can play as components of other material systems. This is a critical area of focus for us and our success depends on working effectively with customers to identify uses and applications for our PHA biopolymers that substantiate the commercial potential for our products.

We have incurred significant losses since our inception. As of December 31, 2014, our accumulated deficit from inception to date was $302,072 and total stockholders' equity was $18,796 . We recognized a net loss of $29,534 in 2014, a net loss of $30,506 in 2013, and net income of $3,630 in 2012.

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 Archer Daniels Midland Company ("ADM"), one of the largest agricultural processors in the world. The alliance activities included the establishment of a joint venture company, Telles, LLC ("Telles"), to market and sell PHA biopolymers, the construction of a 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. ADM terminated the commercial alliance effective February 8, 2012.

Under the alliance agreements, various payments totaling $38,885 were made to Metabolix by ADM. 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 alliance. The Company had no further performance obligations in connection with the commercial alliance after its termination in February 2012, and as a result, the entire $38,885 of deferred revenue was recognized by the Company during its fiscal quarter ended March 31, 2012.

Government Grants

As of December 31, 2014, expected gross proceeds of $1,634 remain to be received under our U.S. and foreign government grants, which includes amounts for reimbursement to our subcontractors, as well as reimbursement for our employees' time, benefits and other expenses related to future performance. Our German AiF Project grant was terminated in October 2014, in connection with the discontinuation of Metabolix GmbH operations. Total government funds related to AiF Project grant has been adjusted to reflect the early termination.

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

Program Title	Funding Agency	Total Government Funds	Total received through December 31, 2014	Remaining amount available as of December 31, 2014	Contract/Grant Expiration
Renewable Enhanced Feedstocks For Advanced Biofuels And Bioproducts	Department of Energy	$ 6,000	$ 4,773	$ 1,227	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	819	566	253	March 2015
Capacity Building for Commercial-Scale PHB Camelina Development	National Research Council Canada	292	286	6	September 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	535	128	December 2015
Development of a Sustainable Value Added Fish Feed Using PHB Producing Camelina	National Research Council Canada	104	70	20	January 2015
Screening and Improvement of Polyhydroxybuyrate (PHB) Production Camelina Sativa Lines for Field Cultivation	Canadian Agricultural Adaptation Program (CAAP)	43	43	—	December 2013
Central Innovation Program for Medium-Sized Companies (ZIM)—Cooperation Project (KF)—Development of New PHB Blends for Innovative Applications	AiF Project GmbH	148	81	—	October 2014
Total		$ 8,069	$ 6,354	$ 1,634	

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

We recognize 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.

Our policy is to recognize product revenue when evidence of an arrangement exists, title has passed or services have been rendered, the selling price is fixed or determinable and payment by the customer 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 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 as revenue because the grants are central to the Company's ongoing crop science program. 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 collection 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 service-based option grants and determine the related compensation expense. During 2014, we issued restricted stock units containing market and performance vesting conditions to our Chief Executive Officer. We estimated the fair value and derived service period of these awards using a Monte Carlo valuation model. 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 13 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.

Results of Operations

The consolidated financial statements for each of the three years ending December 31, 2014, have been presented to reflect the operations of Metabolix GmbH, as well as certain European operations conducted by Metabolix, Inc. prior to the formation of Metabolix GmbH, as a discontinued operation.

Comparison of the Years Ended December 31, 2014 and 2013

Revenue

	Year ended December 31,		
	2014	2013	Change
Product revenue	$ 546	$ 461	$ 85
Grant revenue	1,807	2,480	(673)
Research and development revenue	—	618	(618)
License fee and royalty revenue	447	219	228
Total revenue	$ 2,800	$ 3,778	$ (978)

Total revenue from continuing operations was $2,800 and $3,778 for the twelve months ended December 31, 2014 and 2013 , respectively. During the twelve months ended December 31, 2014 and 2013 , we recognized $546 and $461 , respectively, related to the sale of biopolymer products. The increase of $85 for the twelve months ended December 31, 2014 was primarily related to increased sales of compounded product. At December 31, 2014 and December 31, 2013 , short-term deferred revenue on the Company's balance sheet included $57 and $537 of deferred product revenue, respectively. During the twelve months ended December 31, 2014 , we recognized $1,807 of grant revenue compared to $2,480 in 2013 . The decrease of $673 in grant revenue for the twelve months ended December 31, 2014 consisted primarily of a net decrease in revenue recognized from the REFABB grant of $400 in comparison to the prior year and resulted from a reduction in labor and other direct charges incurred in connection with the grant. Completion of the initial phase of the UCLA ARPA-E grant resulted in a net decrease in revenue recognized of $208 in comparison to the year ended December 31, 2013. During 2013 we recognized $618 in research and development revenue earned from a funded research and development arrangement with a third party that completed during that year. During the twelve months ended December 31, 2014, we recognized $447 of license fees and royalty revenue, including license and royalty revenue from related parties, compared to $219 for the twelve months ended December 31, 2013. The increase of $228 in license fee and royalty revenue was primarily related to revenue from Tepha, Inc., a related party.

We anticipate that product revenue will increase during 2015 as we gain market acceptance for our products and expand commercial production at our third party pilot manufacturing facility, although there likely will be fluctuations from quarter to quarter.

Costs and Expenses

	Year ended December 31,		
	2014	2013	Change
Cost of product revenue	$ 1,482	$ 1,908	$ (426)
Research and development expenses	17,342	18,802	(1,460)
Selling, general, and administrative expenses	10,805	11,608	(803)
Total costs and expense	$ 29,629	$ 32,318	$ (2,689)

Cost of Product Revenue

Cost of product revenue from continuing operations was $1,482 and $1,908 for the twelve months ended December 31, 2014 and 2013 , respectively. These costs primarily include the cost of inventory associated with product revenue recognized during the respective years and inventory impairment charges. The decrease of $426 year-over-year is primarily attributable to lower product sales recognized partially offset by an increase in inventory impairment expense. We routinely evaluate our inventory in order to determine whether its current book value is below the cash value we expect to realize from its sale. During our fiscal years ended December 31, 2014 and 2013, we recorded impairment charges of $873 and $746 , respectively, for slow moving or obsolete inventory that we determined was unlikely to be sold. 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. The Company also recorded charges of $888 and $72 during the years ended December 31, 2014 and 2013, respectively, within discontinued operations for the write-down of inventory to its estimated fair market value.

Although there likely will be fluctuations from period to period, we expect our overall cost of product revenue for continuing operations to decrease over the next twelve months, as cost of product revenue in 2014 included significant non-recurring inventory impairment charges.

Research and Development Expenses

Research and development expenses from continuing operations were $17,342 and $18,802 for the twelve months ended December 31, 2014 and 2013 , respectively. The decrease of $1,460 over fiscal 2013 was primarily attributable to decreases in employee compensation and related benefit expenses, sponsored research activities, lower expenses for research supplies, and reduced depreciation expense. Pilot material production expenses offset a portion of these expense reductions by increasing to $2,858 during 2014, from $2,159 for the twelve months ended December 31, 2013, due to higher levels of biopolymer pilot material in 2014 compared to 2013. Employee compensation and related benefit expenses were $9,562 and $10,803 for the twelve months ended December 31, 2014 and 2013, respectively. The decrease of $1,241 was primarily attributable to decreases in headcount and employee stock compensation expense, offset by approximately $106 of one-time severance costs associated with our October 2014 work force reduction. In addition, sponsored research costs decreased to $297 from $690 for the twelve months ended December 31, 2014 and 2013, respectively. The reduction of $393 was primarily due to reduced outside testing of material produced and a reduction in subcontractor work related to the REFABB grant. Research supplies expense decreased by $209 from $762 for the year ended December 31, 2013, to $553 for the year ended December 31, 2014, and was primarily related to decreased activity resulting from our lower headcount and suspension of our biobased chemicals program. Depreciation expense was $456 and $831 for the twelve months ended December 31, 2014 and 2013, respectively. The decrease of $375 was due to a combination of existing equipment reaching full depreciation and relatively low acquisitions of depreciable fixed assets during 2014.

We expect research and development expenses for the next twelve months to increase as the full year benefit of cost reductions undertaken in the fourth quarter of 2014 is more than offset by higher costs associated with significantly increased pilot biopolymer material production.

Selling, General, and Administrative Expenses

Selling, general, and administrative expenses from continuing operations were $10,805 and $11,608 for the fiscal years ended December 31, 2014 and 2013, respectively. The decrease of $803 over fiscal 2013 was primarily attributable to decreases in employee compensation and declines in consulting expenses and professional fees. Employee compensation and related benefits expenses were $6,121 and $6,369 for the twelve months ended December 31, 2014 and 2013, respectively. The decrease of $248 was primarily attributable to decreases in headcount, recruiting and year-end bonus expense. These reductions in employee compensation expenses were offset by approximately $518 of one-time severance costs associated with our restructuring undertaken during the fourth quarter of 2014 of which $80 was paid during 2014 and $438 is expected to be paid by December 31, 2015. Consulting expenses decreased to $351 from $627 for the fiscal years ended December 31, 2014 and 2013, respectively. The decrease of $276 was primarily attributable to a general reduction in use of outside consultants during 2014. Professional fees decreased to $2,158 from $2,258 for the fiscal years ended December 31, 2014 and 2013, respectively. The decrease of $100 was primarily due to a reduction in accounting and audit service fees.

We expect our selling, general and administrative expenses for the next twelve months to decrease compared to 2014 as a result of cost reductions undertaken in the fourth quarter of 2014 and as we continue to simplify our business structure and focus resources on core PHA performance biopolymers business.

Other Income (Net)

	Year ended December 31,		
	2014	2013	Change
Interest income, net	$ 7	$ 51	$ (44)
Gain on sale of property and equipment	43	—	43
Other expense, net	11	(55)	66
Total other income (expense), net	$ 61	$ (4)	$ 65

Other income (expense), net was net income of $61 and net expense of $4 for the years ended December 31, 2014 and 2013, respectively. Other income (expense), net, during both years consisted primarily of income from our short-term investments, net of investment management and custodial fees, and realized foreign currency gains and losses resulting from foreign currency transactions. The gain from the sale of property and equipment during 2014 was realized from our sale of used laboratory equipment.

Discontinued Operations

In connection with a strategic shift in our business, we decided to discontinue operations in Germany and in October 2014, we sold substantially all of the assets of our wholly-owned German subsidiary, Metabolix GmbH, to Akro, a German manufacturer of engineering plastic compounds. Akro acquired our Mvera ™ B5010 and B5011 products for compostable film, as well as certain inventory, certain contracts, and the Mvera ™ trademark. Akro also took over the Metabolix GmbH employees and office space. The purpose of this sale was to simplify our business structure and focus resources on the success of our core biopolymers business based on PHA performance additives.

During its fiscal year ending December 31, 2014, the Company incurred a loss from discontinued operations of $2,766. Included in this amount was a loss of $888 to write down assets held for sale to their fair market value, which was the Akro contractual purchase price for the assets. The comparable loss from our discontinued German operation for the fiscal year ended December 31, 2013, was $1,962.

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	461	276	185
Grant revenue	2,480	1,971	509
Research and development revenue	618	—	618
License fee and royalty revenue	219	249	(30)
Total revenue	$ 3,778	$ 41,381	$ (37,603)

Total revenue from continuing operations was $3,778 and $41,381 for the fiscal years ended December 31, 2013 and 2012 , respectively. During the twelve months ended December 31, 2013, we recognized $461 of product revenue compared to $276 in 2012 from sales of biopolymers. During the fiscal year 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 fiscal year ended December 31, 2013, we recognized $2,480 of grant revenue compared to $1,971 in 2012. The increase of $509 in grant revenue for the twelve months ended

December 31, 2013 was primarily attributable to new grants that commenced in 2013, including $404 in grant revenue earned from our subcontracted award with the University of California (Los Angeles) and funded by the Department of Energy. During the fiscal year ended December 31, 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 2013. There was no research revenue during 2012. During the twelve months ended December 31, 2013, we also recognized $219 of license fee and royalty revenue from related parties compared to $249 for the respective period in 2012.

Costs and Expenses

	Year ended December 31,		
	2013	**2012**	**Change**
Cost of product revenue	$ 1,908	$ 1,030	$ 878
Research and development expenses	18,802	23,177	(4,375)
Selling, general, and administrative expenses	11,608	13,245	(1,637)
Total costs and expense	$ 32,318	$ 37,452	$ (5,134)

Cost of Product Revenue

Cost of product revenue was $1,908 and $1,030 for the fiscal years ended December 31, 2013 and 2012, respectively. These costs primarily include cost of inventory shipped and 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. During the twelve months ended December 31, 2013 and 2012, we recorded charges of $746 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.

Research and Development Expenses

Research and development expenses from continuing operations were $18,802 and $23,177 for the twelve months ended December 31, 2013 and 2012, respectively. The decrease of $4,375 was primarily attributable to decreases in material production costs, employee compensation and related benefit expenses, consulting, and depreciation expense. Expenses related to material production costs were $2,159 and $4,456 for the twelve months ended December 31, 2013 and 2012, respectively. The decrease of $2,297 was primarily associated with our efforts during 2012 to establish pilot manufacturing operations, including manufacturing of demonstration batches for our biodegradable products and industrial chemicals products then under development. Employee compensation and related benefit expenses were $10,803 and $12,033 for the twelve months ended December 31, 2013 and 2012, respectively. The decrease of $1,230 was primarily attributable to a decrease in employee headcount in response to the termination in 2012 of the Telles joint venture. Consulting costs decreased to $156 from $542 for the twelve months ended December 31, 2013 and 2012, respectively. The reduction of $386 was also 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.

Selling, General, and Administrative Expenses

Selling, general, and administrative expenses from continuing operations were $11,608 and $13,245 for the fiscal years ended December 31, 2013 and 2012, respectively. The decrease of $1,637 was primarily attributable to decreases in employee compensation and related benefit expenses, professional fees and travel costs. Employee compensation and related benefit expenses were $6,369 and $7,201 for the twelve months ended December 31, 2013 and 2012, respectively. The net decrease of $832 during 2013 was primarily the result of the Company's 2012 restructuring partially offset by approximately $800 of one-time severance, recruiting and legal transition costs associated with the replacement of our chief executive officer in late 2013. Professional fees decreased to $2,258 for the fiscal year ended December 31, 2013, from $2,857 for the fiscal year ended December 31, 2012. The decrease of $599 was primarily due to reduced patent related activities and a reduction in litigation costs. Travel expense decreased to $267 from $410 for the twelve months ended December 31, 2013 and 2012,

respectively. The decrease of $143 was primarily as a result of cost containment measures enacted by the Company in connection with the termination of the Telles joint venture during 2012.

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 a net expense of $4 and net 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.

Discontinued Operations

In connection with a change in our business that represented a strategic shift, we decided to to discontinue operations in Germany and in October 2014, we sold substantially all of the assets of our wholly-owned German subsidiary, Metabolix GmbH, to Akro, a German manufacturer of engineering plastic compounds. Akro acquired our Mvera ™ B5010 and B5011 products for compostable film, as well as certain inventory, certain contracts, and the Mvera ™ trademark. Akro also took over the Metabolix GmbH employees and office space. The purpose of this sale was to simplify our business structure and focus resources on the success of our core biopolymers business based on PHA performance additives.

During its fiscal years ending December 31, 2013 and December 31, 2012, the Company's loss from discontinued operations of its German operations were $1,962 and $326, respectively. The less significant loss reported for 2012 was the result of our initial commencement and ramp up of operations within Germany during March of that year.

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;
- other funded research development arrangements
- 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, 2014, we had an accumulated deficit of $302,072 . Our total unrestricted cash, cash equivalents and investment as of December 31, 2014, were $20,046 as compared to $19,209 at December 31, 2013. As of December 31, 2014, we had no outstanding debt.

Our cash and cash equivalents at December 31, 2014 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, 2014, 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, 2014, 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 its fiscal year ended December 31, 2014. As of December 31, 2014, the Company held unrestricted cash and cash equivalents of $20,046. 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 expect that reductions in cash usage in 2015 due to discontinuation of our German operations, restructuring of our U.S. organization and other cost containment measures will be largely offset by increased biopolymer production costs. As a result, we anticipate cash usage during 2015 of approximately $23,000, including approximately $1,000 in capital costs related to the expansion of pilot manufacturing and assuming continued funding of the Company's crop science program for the full year.

While we were successful in raising $25,000 during the third quarter of 2014, we will still require additional funding during 2015 to continue our operations and support our capital needs. The timing, structure and vehicles for obtaining future financing are under consideration, but, there can be no assurance that future financing efforts will be successful. We intend to use the proceeds of any future financings to continue developing our specialty biopolymers business as the foundation for our longer range commercial scale plans and the future growth of our business.

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 expansion of pilot manufacturing or the establishment and start-up of commercial manufacturing 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.

If we issue equity or debt securities to raise additional funds, (i) the Company may incur fees associated with such issuance, (ii) our existing stockholders will experience dilution from the issuance of new equity securities, (iii) the Company may incur ongoing interest expense and be required to grant a security interest in Company assets in connection with any debt issuance, and (iv) the new equity or debt securities may have rights, preferences and privileges senior to those of our existing stockholders. In addition, utilization of our net operating loss and research and development credit carryforwards may be subject to significant annual limitations under Section 382 of the Internal Revenue Code of 1986 due to ownership changes resulting from future equity financing transactions. 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.

Failure to receive additional funding in 2015 may force the Company to delay, scale back or otherwise modify its business and manufacturing plans, 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.

Net cash used by continuing operations for operating activities was $23,691 for the year ended December 31, 2014, compared to net cash of $23,657 and $30,384 used in operating activities during 2013 and 2012, respectively. The cash used during 2014 primarily reflects the net loss for the year partially offset by non-cash expenses, including stock-based compensation expense of $2,276 , depreciation expense of $507 , inventory impairment write-downs totaling $873 and the Company's 401(k) stock matching contribution expense of $374 . In addition, $845 of net cash was used by discontinued operations for operating activities.

Net cash of $11,380 was provided by continuing operations for investing activities during the twelve months ended December 31, 2014, compared to net cash provided by investing activities during 2013 and 2012 of $19,788 and $25,018 , respectively. Net cash provided by investing activities during the twelve months ended December 31, 2014 include $13,017 provided by the sale and maturity of investments, partially offset by $1,508 used to purchase investments. Net cash provided by investing activities during the twelve months ended December 31, 2013 included $36,821 provided by the sale and

maturity of investments, partially offset by $16,635 used to purchase investments. In addition, $292 of net cash was provided by discontinued operations for investing activities in relation to the sale of Metabolix GmbH to Akro-Plastics.

Net cash of $25,214 was provided by financing activities during the twelve months ended December 31, 2014, compared to net cash of $14 and $19 provided by financing activities during 2013 and 2012, respectively. Net cash provided by financing activities during 2014 included $24,914 in proceeds, net of $86 of issuance costs, from the Company's private placement of equity securities completed during the third quarter. Net cash provided by financing activities during 2013 and 2012 was solely attributable to the proceeds received from the exercise of stock options.

Off-Balance Sheet Arrangements

As of December 31, 2014, 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, 2014:

	Payments Due by Period				
	Total	Less than 1 year	2-3 years	4-5 years	More than 5 years
Operating lease obligations	$ 7,925	$ 1,477	$ 2,873	$ 3,012	$ 563
Purchase obligations	325	325	—	—	—
Total	$ 8,250	$ 1,802	$ 2,873	$ 3,012	$ 563

Our primary obligations relate to 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 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 July 2015.

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.

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 and cash equivalents, totaling $20,046 at December 31, 2014. 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, 2014, the impact to stockholders' equity would be immaterial.

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 Accounting 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 Accounting Officer concluded that as of December 31, 2014 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 Accounting 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, 2014. In making this assessment, management used the criteria set forth in the 2013 *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, 2014, 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 28, 2015, 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	(13)	Amended and Restated Certificate of Incorporation of the Registrant.
3.2	(1)	Amended and Restated By-laws of the Registrant.
4.1	(1)	Specimen Stock Certificate for shares of the Registrant's Common Stock.
10.1	†(1)	2005 Stock Plan.
10.1.1	†(1)	2005 Stock Plan, Form of Incentive Stock Option Agreement.
10.1.2	†(1)	2005 Stock Plan, Form of Non-Qualified Stock Option Agreement.
10.2	†(1)	2006 Stock Option and Incentive Plan.
10.2.1	†(1)	2006 Stock Option and Incentive Plan, Form of Incentive Stock Option Agreement.
10.2.2	†(1)	2006 Stock Option and Incentive Plan, Form of Non-Qualified Stock Option Agreement.
10.2.3	†(1)	2006 Stock Option and Incentive Plan, Form of Director Non-Qualified Stock Option Agreement.
10.3	†(12)	2014 Stock Option and Incentive Plan.
10.3.1	†*	2014 Stock Option and Incentive Plan, Form of Incentive Stock Option Award.
10.3.2	†*	2014 Stock Option and Incentive Plan, Form of Non-Qualified Stock Option Award.
10.3.3	†*	2014 Stock Option and Incentive Plan, Form of Restricted Stock Unit Award.
10.4	#(1)	License Agreement between the Company and Massachusetts Institute of Technology dated July 15, 1993, as amended.
10.5	†(1)	Employment Agreement between the Company and Oliver P. Peoples dated July 20, 2006.
10.5.1	†(4)	First Amendment to Employment Agreement between the Company and Oliver P. Peoples executed December 19, 2008.
10.5.2	†(4)	Second Amendment to Employment Agreement between the Company and Oliver P. Peoples executed February 25, 2009.
10.6	†*	Severance Agreement between the Company and Charles B. Haaser dated January 5, 2015.
10.7	†(8)	Severance Agreement between the Company and Sarah P. Cecil executed July 1, 2013.
10.8	†(3)	Employment Agreement between the Company and Johan van Walsem executed July 9, 2009.
10.8.1	†(8)	Letter Agreement between the Company and Johan van Walsem executed on July 12, 2013.
10.9	†(5)	Employment Agreement between the Company and Lynne H. Brum executed November 14, 2011.
10.10	†(9)	Employment Agreement between the Company and Joseph Shaulson dated December 19, 2013.
10.11	†(9)	Noncompetition, Confidentiality and Inventions Agreement between the Company and Joseph Shaulson dated December 19, 2013.
10.12	†(10)	Non-Qualified Stock Option Agreement between the Company and Joseph Shaulson dated December 19, 2013.
10.13	†(10)	Restricted Stock Unit Award Agreement between the Registrant and Joseph Shaulson dated March 24, 2014.

10.14	†(1)	Form of Employee Noncompetition, Nondisclosure and Inventions Agreement with Oliver P. Peoples and Johan van Walsem.
10.15	†(1)	Form of Noncompetition, Nondisclosure and Inventions Agreement between the Registrant and Charles B. Haaser, Lynne Brum, and Sarah P. Cecil.
10.16	†(1)	Form of Indemnification Agreement between the Registrant and its Directors and Officers.
10.17	(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.
10.17.1	(9)	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.
10.18	(2)	Lease between Fortune Wakefield, LLC and Metabolix, Inc. dated March 30, 2007.
10.18.1	(6)	First Amendment of Lease between Fortune Wakefield, LLC and Metabolix, Inc. dated February 29, 2012.
10.18.2	(9)	Second Amendment of Lease between Fortune Wakefield, LLC and Metabolix, Inc. dated October 24, 2013.
10.19	#(1)	License Agreement between the Company and Tepha, Inc. dated as of October 1, 1999.
10.20	#(1)	License Agreement between the Company and Tepha, Inc. dated as of September 9, 2003.
10.21	(11)	Amended and Restated Agreement, dated as of August 22, 2014, by and among the Company, Jack W. Schuler, Renate Schuler and the Schuler Family Foundation.
10.22	(7)	Confidential Disclosure Agreement dated February 6, 2013, between the Company and Jack W. Schuler.
10.22.1	*	Extension of Confidential Disclosure Agreement between the Company and Jack W. Schuler executed March 13, 2015.
14.1	(5)	Metabolix, Inc. Code of Business Conduct and Ethics.
21.1	(7)	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.
101.1	*	The following financial information from the Metabolix Inc. Annual Report on Form 10-K for the year ended December 31, 2014 formatted in XBRL; (i) Consolidated Balance Sheets, December 31, 2014 and December 31, 2013; (ii) Consolidated Statements of Operations, Years Ended December 31, 2014, 2013 and 2012; (iii) Consolidated Statements of Comprehensive Income (Loss), Years Ended December 31, 2014, 2013 and 2012; (iv) Consolidated Statements of Cash Flows, Years Ended December 31, 2014, 2013 and 2012; and (v) Consolidated Statements of Stockholders' Equity for the Years Ended December 31, 2014, 2013 and 2012; 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 Quarterly Report on Form 10-Q for the quarter ended June 30, 2009 (File No. 001-33133)

(4) 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)

(5) 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)

(6) 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)

(7) 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)

(8) 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)

(9) Incorporated by reference herein to the exhibits to the Company's 2013 Annual Report on Form 10-K filed March 28, 2014 (File No. 001-33133)

(10) Incorporated by reference herein to the exhibits to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2014 (File No. 001-33133)

(11) Incorporated by reference herein to the exhibits to the Company's Report on Form 8-K filed on August 4, 2014 (File No. 001-33133)

(12) Incorporated herein by reference herein to Appendix A to the Company's Definitive Proxy Statement on Schedule 14A filed on October 6, 2014 (File No. 001-33133)

(13) Incorporated by reference herein to the exhibits to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2014 (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 25, 2015 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, Charles B. Haaser, 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 25, 2015
/s/ CHARLES B. HAASER Charles B. Haaser	Chief Accounting Officer (Principal Accounting Officer)	March 25, 2015
/s/ PETER N. KELLOGG Peter N. Kellogg	Director	March 25, 2015
/s/ CELESTE B. MASTIN Celeste B. Mastin	Director	March 25, 2015
/s/ OLIVER P. PEOPLES Oliver P. Peoples	Director	March 25, 2015
/s/ ANTHONY J. SINSKEY Anthony J. Sinskey, Sc.D.	Director	March 25, 2015
/s/ MATTHEW STROBECK Matthew Strobeck	Director	March 25, 2015
/s/ ROBERT L. VAN NOSTRAND Robert L. Van Nostrand	Director	March 25, 2015

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, 2014 and 2013, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2014 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, 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 25, 2015

METABOLIX, INC.

CONSOLIDATED BALANCE SHEETS

(In thousands, except share and per share amounts)

	December 31, 2014	December 31, 2013
Assets		
Current Assets:		
Cash and cash equivalents	$ 20,046	$ 7,698
Short-term investments	—	11,511
Accounts receivable	45	997
Due from related parties	112	51
Unbilled receivables	420	187
Inventory	586	1,921
Prepaid expenses and other current assets	756	713
Assets of disposal group classified as held for sale	—	2,153
Total current assets	21,965	25,231
Restricted cash	619	619
Property and equipment, net	456	793
Other assets	95	95
Total assets	$ 23,135	$ 26,738
Liabilities and Stockholders' Equity		
Current Liabilities:		
Accounts payable	$ 333	$ 579
Accrued expenses	3,709	4,892
Current portion of deferred rent	—	55
Short-term deferred revenue	147	669
Total current liabilities	4,189	6,195
Other long-term liabilities	150	145
Total liabilities	4,339	6,340
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); 250,000,000 shares authorized at December 31, 2014, 135,182,140 and 34,581,449 shares issued and outstanding at December 31, 2014 and 2013, respectively	1,352	346
Additional paid-in capital	319,580	292,661
Accumulated other comprehensive loss	(64)	(71)
Accumulated deficit	(302,072)	(272,538)
Total stockholders' equity	18,796	20,398
Total liabilities and stockholders' equity	$ 23,135	$ 26,738

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,		
	2014	**2013**	**2012**
Revenue:			
Revenue from termination of ADM collaboration	$ —	$ —	$ 38,885
Product revenue	546	461	276
Grant revenue	1,807	2,480	1,971
Research and development revenue	—	618	—
License fee and royalty revenue	447	219	249
Total revenue	2,800	3,778	41,381
Costs and expenses:			
Cost of product revenue	1,482	1,908	1,030
Research and development	17,342	18,802	23,177
Selling, general, and administrative	10,805	11,608	13,245
Total costs and expenses	29,629	32,318	37,452
Income (loss) from continuing operations	(26,829)	(28,540)	3,929
Other income (expense), net:			
Interest income, net	7	51	124
Gain on sale of property and equipment	43	—	—
Other income (expense), net	11	(55)	(97)
Total other income (expense), net	61	(4)	27
Net income (loss) from continuing operations	(26,768)	(28,544)	3,956
Discontinued operations			
Loss from discontinued operations	(1,878)	(1,962)	(326)
Loss from write down of assets held for sale	(888)	—	—
Total loss from discontinued operations	(2,766)	(1,962)	(326)
Net income (loss)	$ (29,534)	$ (30,506)	$ 3,630
Basic net loss per share:			
Net income (loss) from continuing operations	$ (0.44)	$ (0.83)	$ 0.12
Net loss from discontinued operations	(0.04)	(0.05)	(0.01)
Net income (loss) per share	$ (0.48)	$ (0.88)	$ 0.11
Diluted net income (loss) per share			
Net income (loss) from continuing operations	$ (0.44)	$ (0.83)	$ 0.12
Net loss from discontinued operations	(0.04)	(0.05)	(0.01)
Net income (loss) per share	$ (0.48)	$ (0.88)	$ 0.11
Number of shares used in per share calculations:			
Basic	61,455,063	34,471,301	34,217,298
Diluted	61,455,063	34,471,301	34,279,779

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,		
	2014	**2013**	**2012**
Net income (loss)	$ (29,534)	$ (30,506)	$ 3,630
Other comprehensive income (loss):			
Change in unrealized (loss) on investments	(1)	(12)	(3)
Change in foreign currency translation adjustment	(157)	(38)	(6)
Reclassification adjustment for losses included in net loss	165	—	—
Total other comprehensive income (loss)	7	(50)	(9)
Comprehensive income (loss)	$ (29,527)	$ (30,556)	$ 3,621

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

METABOLIX, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS

(In thousands)

	Years Ended December 31,		
	2014	**2013**	**2012**
Cash flows from operating activities			
Net income (loss)	$ (29,534)	$ (30,506)	$ 3,630
Less:			
Loss from discontinued operation	(2,766)	(1,962)	(326)
Loss from continuing operation	(26,768)	(28,544)	3,956
Adjustments to reconcile net income (loss) to cash used in operating activities:			
Depreciation	507	928	1,298
Charge for 401(k) company common stock match	374	397	408
Stock-based compensation	2,276	3,122	3,779
Inventory impairment	873	746	138
Gain on sale of property and equipment	(43)	—	—
Changes in operating assets and liabilities:			
Accounts receivable	952	(158)	(693)
Due from related parties	(61)	24	236
Unbilled receivable	(223)	185	(68)
Inventory	462	(516)	(2,288)
Prepaid expenses and other assets	(43)	(21)	108
Accounts payable	(246)	(654)	721
Accrued expenses	(1,179)	1,383	(34)
Deferred rent and long-term liabilities	(50)	(151)	(154)
Deferred revenue	(522)	(398)	(37,791)
Net cash used by continuing operations for operating activities	(23,691)	(23,657)	(30,384)
Net cash used by discontinued operations for operating activities	(845)	(2,991)	(1,352)
Net cash used in operating activities	(24,536)	(26,648)	(31,736)
Cash flows from investing activities			
Purchase of property and equipment	(172)	(373)	(392)
Proceeds from sale of equipment	43	—	12
Change in restricted cash	—	(25)	28
Purchase of investments	(1,508)	(16,635)	(58,933)
Proceeds from sale and maturity of short-term investments	13,017	36,821	84,303
Net cash provided by continuing operations for investing activities	11,380	19,788	25,018
Net cash provided by discontinued operations for investing activities	292	—	—
Net cash provided by investing activities	11,672	19,788	25,018
Cash flows from financing activities			
Proceeds from options exercised	300	14	19
Proceeds from private placement offering, net of issuance costs	24,914	—	—
Net cash provided by financing activities	25,214	14	19
Effect of exchange rate changes on cash and cash equivalents	(2)	(28)	(6)
Net increase (decrease) in cash and cash equivalents	12,348	(6,874)	(6,705)
Cash and cash equivalents at beginning of period	7,698	14,572	21,277
Cash and cash equivalents at end of period	$ 20,046	$ 7,698	$ 14,572
Supplemental disclosure of non-cash information:			
Preferred stock conversion to common stock	$ 12,500	$ —	$ —

METABOLIX, INC.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

(In thousands, except share amounts)

	Series B Preferred Stock		Common Stock					
	Shares	Par Value	Shares	Par Value	Additional Paid-In Capital	Accumulated other Comprehensive Income (loss)	Accumulated Deficit	Total Stockholders' Equity
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 loss 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
Exercise of common stock options	—	—	250,000	2	298			300
Non-cash stock-based compensation expense	—	—	—		2,335	—	—	2,335
Issuance of common stock for 401k match	—	—	350,691	4	372	—	—	376
Issuance of stock in connection with private placement, net offering costs of $86	50,000	1	50,000,000	500	24,413	—	—	24,914
Issuance of common stock upon conversion of preferred stock	(50,000)	(1)	50,000,000	500	(499)	—	—	—
Change in unrealized gain on investments	—	—	—	—	—	(1)	—	(1)
Effect of foreign currency translation	—	—	—	—	—	8	—	8
Net loss	—	—	—	—	—	—	(29,534)	(29,534)
Balance, December 31, 2014	—	$ —	135,182,140	$1,352	$ 319,580	$ (64)	$ (302,072)	$ 18,796

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 is an advanced biomaterials company focused on delivering sustainable solutions to the plastics industry. 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 which, together with our technology, serves as a valuable foundation for our business and future industry collaborations. The Company is subject to risks common to companies in the biotechnology industry including, but not limited to, the need to obtain additional funding, development by the Company's competitors of new technological innovations, protection of proprietary technology, 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, 2014. As of December 31, 2014, the Company held unrestricted cash and cash equivalents of $20,046 . 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 expects that reductions in cash usage in 2015 due to the discontinuation of its German operations, restructuring of its U.S. organization and other cost containment measures will be largely offset by increased biopolymer production costs. As a result, the Company anticipates cash usage during 2015 of approximately $23,000 , including $1,000 in capital costs related to the expansion of pilot manufacturing and assuming continued funding of the Company's crop science program for the full year.

While the Company was successful in raising $25,000 during the third quarter of 2014, the Company will require additional funding during 2015 to continue its operations and support its capital needs. The timing, structure and vehicles for obtaining future financing are under consideration, but, there can be no assurance that such financing efforts will be successful. The Company intends to use the proceeds of future financings to continue developing its specialty biopolymers business as the foundation for its longer range commercial scale plans and the future growth of its business.

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 expansion of pilot manufacturing or the establishment and start-up of commercial manufacturing 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.

If the Company issues equity or debt securities to raise additional funds, (i) the Company may incur fees associated with such issuance, (ii) its existing stockholders will experience dilution from the issuance of new equity securities, (iii) the Company may incur ongoing interest expense and be required to grant a security interest in Company assets in connection with any debt issuance, and (iv) the new equity or debt securities may have rights, preferences and privileges senior to those of the Company’s existing stockholders. In addition, utilization of the Company’s net operating loss and research and development credit carryforwards may be subject to significant annual limitations under Section 382 of the Internal Revenue Code of 1986 due to ownership changes resulting from future equity financing transactions. 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.

Failure to receive additional funding in 2015 may force the Company to delay, scale back or otherwise modify its business and manufacturing plans, sales and marketing efforts, research and development activities and other operations, and/

METABOLIX, INC.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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

or seek strategic alternatives. The consolidated financial statements do not include any adjustments that may result from the outcome of these uncertainties.

2. Summary of Significant Accounting Policies

Principles of Consolidation

Our consolidated financial statements are prepared in accordance with accounting principles generally accepted in the United States of America. The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries. All significant intercompany transactions were eliminated, including transactions with its German subsidiary, Metabolix GmbH, and its Canadian subsidiary, Metabolix Oilseeds, Inc. On October 20, 2014, the Company completed the sale of substantially all of the assets of Metabolix GmbH to AKRO-PLASTIC GmbH, a German manufacturer of engineering plastics compounds. The consolidated financial statements for each of the three years ending December 31, 2014, have been presented to reflect the operations of Metabolix GmbH, as well as certain European operations conducted by Metabolix, Inc. prior to the formation of Metabolix GmbH, as a discontinued operation.

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.

Cash Equivalents and 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 , investments consisted of U.S. Treasury securities and debt securities of the U.S. government and were classified as available for sale. The Company held no investments at December 31, 2014. 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.

Restricted Cash

The Company had restricted cash in the amount of $ 619 at both December 31, 2014 and 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.

METABOLIX, INC.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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

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. During the year ended December 31, 2014, the Company reduced its cumulative translation loss within accumulated other comprehensive income as a result of the sale of the European operation of its German subsidiary.

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 has historically invested its cash equivalents in highly rated 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. At December 31, 2014, the Company's cash equivalents were invested solely in money market funds.

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, 2014 , the Company's worldwide accounts and unbilled receivables include $ 429 or 74% primarily from U.S. government grants and $ 37 or 6% from customer product sales. At December 31, 2014 , the Company's REFABB grant with the Department of Energy represented 63% of billed and unbilled receivables from government grants. At December 31, 2013 , the Company's worldwide accounts and unbilled receivables included $ 552 or 46% from government grants and $ 528 or 44% from customer product sales. At December 31, 2013 , one customer represented 23% of accounts receivable due from product sales.

Fair Value Measurements

The carrying amounts of the Company's financial instruments as of December 31, 2014 and 2013 , which include cash equivalents, investments, accounts receivable, unbilled receivables, receivables due from related 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 microbes and plants. 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, 2014 , 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.

METABOLIX, INC.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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

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 other income (expense), net 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 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 current 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.

The Company's policy is to recognize product revenue when evidence of an arrangement exists, title has passed or services have been rendered, the selling price is fixed or determinable and payment by the customer 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, 2014 and December 31, 2013 , the Company's deferred product revenue and associated cost of product revenue are shown below:

METABOLIX, INC.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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

	Year Ended December 31,	
	2014	2013
Deferred product revenue	$ 57	$ 537
Deferred cost of product revenue	$ 9	$ 476

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 collection 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. Under this guidance, the fair value of deliverables under an 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.

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

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, product trials, facility related expenses, depreciation, and stock-based compensation. Costs related to revenue-producing contracts and government grants are 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 13 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.

METABOLIX, INC.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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

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. 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 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. Common stock equivalents include stock options, restricted stock awards and warrants.

The Company follows the two-class method when computing net loss per share, when it has issued shares that meet the definition of participating securities. The two-class method determines net loss per share for each class of common and participating securities according to dividends declared or accumulated and participating rights in undistributed earnings. The two-class method requires income available to common stockholders for the period to be allocated between common and participating securities based on their respective rights to receive dividends, as if all income for the period has been distributed or losses to be allocated if they are contractually required to fund losses. There were no amounts allocated to participating securities as the Company was in a loss position and has no shares that meet the definition of participating securities outstanding at December 31, 2014.

Shares used to calculate diluted earnings per share for the three years ended December 31, 2014 , 2013 and 2012 , respectively, are shown below:

	Year Ended December 31,		
	2014	**2013**	**2012**
Numerator:			
Net income (loss)	$ (29,534)	$ (30,506)	$ 3,630
Denominator:			
Weighted average number of common shares outstanding	61,455,063	34,471,301	34,217,298
Effect of dilutive securities:			
Stock options	—	—	62,481
Dilutive potential common shares	—	—	62,481
Shares used in calculating diluted earnings per share	61,455,063	34,471,301	34,279,779

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, 2014 , 2013 and 2012 , respectively, are shown below:

	Year Ended December 31,		
	2014	**2013**	**2012**
Options	6,664,359	6,201,429	5,579,042
Restricted stock awards	600,000	—	—
Warrants	—	4,086	4,086
Total	7,264,359	6,205,515	5,583,128

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

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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 14 for further discussion of income taxes. The Company had no amounts recorded for any unrecognized tax benefits as of December 31, 2014, 2013 and 2012.

The Company accounts for uncertain tax positions using a "more-likely-than-not" threshold for recognizing and resolving uncertain tax positions. The evaluation of uncertain tax positions is based on factors that include, but are not limited to, changes in tax law, the measurement of tax positions taken or expected to be taken in tax returns, the effective settlement of matters subject to audit, new audit activity and changes in facts or circumstances related to a tax position. The provision for income taxes includes the effects of any resulting tax reserves or unrecognized tax benefits that are considered appropriate as well as the related net interest and penalties, if any. The Company evaluates uncertain tax positions on a quarterly basis and adjusts the level of the liability to reflect any subsequent changes in the relevant facts surrounding the uncertain positions.

Recent Accounting Standards Changes

In April 2014, the FASB issued ASU No. 2014-08, *Reporting Discontinued Operations and Disclosures of Disposals of Components of an Entity*, which changes the criteria for determining which disposals can be presented as discontinued operations and modifies the related disclosure requirements. Under the new guidance, a disposal of a component of an entity or a group of components of an entity is required to be reported in discontinued operations if the disposal represents a strategic shift that has (or will have) a major effect on an entity's operations and financial results and is disposed of or classified as held for sale. The standard also introduces several new disclosures. The guidance applies prospectively to new disposals and new classifications of disposal groups as held for sale after the effective date. ASU 2014-08 is effective for annual and interim periods beginning after December 15, 2014, with early adoption permitted. The Company has elected early adoption of ASU 2014-08 and has applied the new guidance in connection with its sale of substantially all of the assets and operations of its wholly-owned subsidiary, Metabolix GmbH. See Note 17, Discontinued Operations.

During the quarter ended September 30, 2014, the Financial Accounting Standards Board ("FASB") issued ASU No. 2014-09, *Revenue from Contracts with Customers (Topic 606)* , which supersedes all existing revenue recognition requirements, including most industry-specific guidance. The new standard requires a company to recognize revenue when it transfers goods or services to customers in an amount that reflects the consideration that the company expects to receive for those goods or services. It also requires additional disclosure about the nature, amount, timing and uncertainty of revenue and cash flows arising from customer contracts, including significant judgments and changes in judgments and assets recognized from costs incurred to obtain or fulfill a contract. The new standard will be effective for annual and interim periods beginning on or after December 15, 2016, and will be effective for the Company beginning on January 1, 2017. The amendment allows for two methods of adoption, a full retrospective method or a modified retrospective approach with the cumulative effect recognized at the date of initial application. Early adoption is not permitted. The Company is currently evaluating the method of adoption and potential impact that Topic 606 may have on its financial position and results of operations.

In August 2014, the FASB issued ASU 2014-15, *Presentation of Financial Statements-Going Concern (Subtopic 205-40)* . The new guidance addresses management's responsibility to evaluate whether there is substantial doubt about an entity's ability to continue as a going concern for one year after the date that the financial statements are issued and to provide related footnote disclosures. Management's evaluation should be based on relevant conditions and events that are known and reasonably knowable at the date that the financial statements are issued. This guidance should reduce diversity in the timing and content of footnote disclosures. The amendment in this update apply to all entities and are effective for the annual period ending after December 15, 2016, and for annual periods and interim periods thereafter. Early application is permitted. The Company is currently reviewing the potential impact of adopting the new guidance.

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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 requires 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. During the three years ended December 31, 2014, 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, and resulted in the Company recognizing $38,885 in previously deferred revenue during its fiscal quarter ended March 31, 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 working capital needs. By their nature, our collaborative agreements have been complex, containing multiple elements covering a variety of present and future activities.

4. Inventory

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

	Year Ended December 31,	
	2014	**2013**
Raw materials	$ 2	$ 208
Finished goods	584	1,713
Total inventory	$ 586	$ 1,921

Included within finished goods at December 31, 2014 and December 31, 2013 , are $9 and $476 , 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. On a quarterly basis, the Company uses consistent methodologies to evaluate inventory for net realizable value; reducing the value of inventory for excess and obsolete inventory based upon certain assumptions made about future customer demand, quality and possible alternative uses. During the years ended December 31, 2014 and 2013 , the Company recorded impairment charges to cost of product revenue of $873 and $746 , respectively, within continuing operations, for raw material and finished goods inventory that it determined was unlikely to be sold. The Company also record charges of $888 and $72 during the years ended December 31, 2014 and 2013, respectively, within discontinued operations for the write-down of inventory to its estimated fair value.

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5. Investments

Investments consist of the following at December 31, 2013:

	Amortized Cost	Unrealized Gain	Unrealized (Loss)	Market Value
Short-term investments				
Government sponsored enterprises	$ 11,510	$ 1	$ —	$ 11,511
Total	$ 11,510	$ 1	$ —	$ 11,511

The Company held no investments at December 31, 2014, and therefore there were no marketable securities available-for-sale as of that date.

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 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. At December 31, 2014, the Company did not own any Level 2 or Level 3 financial assets. At December 31, 2013, the Company did not own any Level 3 financial assets.

The Company's financial assets classified as Level 2 at December 31, 2013, were 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 .

The tables below present information about the Company's assets that are measured at fair value on a recurring basis as of December 31, 2014 and December 31, 2013 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, 2014
Cash equivalents:				
Money market funds	$ 19,011	$ —	$ —	$ 19,011
Total	$ 19,011	$ —	$ —	$ 19,011

Description	Fair value measurements at reporting date using: 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
	$ 6,332	$ 11,511	$ —	$ 17,843

7. Property and Equipment, Net

Property and equipment consisted of the following:

	Year ended December 31, 2014	2013
Equipment	$ 4,723	$ 4,868
Furniture and fixtures	227	227
Leasehold improvements	1,356	2,652
Software	381	381
Total property and equipment, at cost	6,687	8,128
Less: Accumulated depreciation	(6,231)	(7,335)
Property and equipment, net	$ 456	$ 793

Depreciation expense for the years ended December 31, 2014 , 2013 , and 2012 was $507 , $928 and $1,298 respectively.

8. Accrued Expenses

Accrued expenses consist of the following:

	Year ended December 31, 2014	2013
Employee compensation and benefits	$ 2,621	$ 2,595
Commercial manufacturing	77	815
Professional services	564	578
Other	447	904
Total accrued expenses	$ 3,709	$ 4,892

9. Commitments and Contingencies

Leases

The Company rents its facilities under operating leases which expire in May 2020. Rent expense under operating leases for the years ended December 31, 2014 , 2013 and 2012 was $1,944 , $1,610 and $1,794 , respectively. The deferred rent liability recorded on the Company's balance sheet at December 31, 2013 includes the unamortized balance of landlord

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incentive payments and the cumulative difference between actual facility lease payments and lease expense recognized ratably over the operating lease period. At December 31, 2014 , the Company's future minimum payments required under operating leases are as follows:

Year ended December 31,	Minimum lease payment
2015	$ 1,477
2016	1,419
2017	1,454
2018	1,488
2019 and thereafter	2,087
Total	$ 7,925

Litigation

From time to time, the Company may be subject to legal proceedings and claims in the ordinary course of business. The Company is not currently aware of any such 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. Two of the Company's directors, Matthew Strobeck and Anthony J. Sinskey, serve on the Board of Directors of Tepha. Under the agreements, the Company receives royalties on net sales of licensed products and sublicensing revenues received by Tepha, subject to a minimum payment each year.

The Company recognized license and royalty revenues of $425 , $149 and $149 from Tepha for the years ended December 31, 2014 , 2013 , and 2012 , respectively. The Company had outstanding receivable balances of $112 and $51 at December 31, 2014 and 2013 , 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, 2014 and 2013 , no preferred stock was issued or outstanding.

12. Capital Stock

Common and Preferred Stock Issuances

On August 22, 2014, the Company completed a private placement of Company securities. Proceeds received from the transaction were $24,914 , net of issuance costs of $86 . Investors participating in the transaction purchased a total of 50,000,000 units of the Company’s securities at a price of $0.50 per unit. Each unit consisted of one share of the Company’s common stock and one one-thousandth of a share of the Company’s Series B Convertible Preferred Stock, for a total of 50,000,000 shares of common stock and 50,000 shares of Series B Convertible Preferred Stock. Each share of the preferred stock issued in the transaction was non-voting, was not redeemable, had no liquidation preference and the only conversion rights were that each share was automatically convertible into 1,000 shares of common stock upon the effectiveness of the filing by the Company of a charter amendment to increase the number of shares of authorized common stock to not less than 150,000,000 . On October 30, 2014, following stockholder approval of a charter amendment to increase the number of authorized shares of the Company’s common stock to 250,000,000 and the effectiveness of such charter amendment, each

share of preferred stock issued in the private placement automatically converted into 1,000 shares of common stock, for a total of 50,000,000 additional shares of common stock.

13. Stock-Based Compensation

The Company adopted a stock plan in 2005 (the "2005 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 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, 2014 , 211,614 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. In October 2014, the 2006 Plan was terminated and the Company adopted a new plan (the "2014 Plan"). No further grants or awards were subsequently made under the 2006 Plan. A total of 8,802,352 options have been awarded from the 2006 Plan and as of December 31, 2014 , 5,285,945 of these options remain outstanding and eligible for future exercise.

The 2014 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. A total of 16,800 options have been awarded from the 2014 Plan and as of December 31, 2014 , 16,800 of these options remain outstanding and eligible for future exercise.

Options granted under the 2005 Plan, the 2006 Plan and the 2014 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 2 nd , 3 rd and 4t h 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 is as follows:

	Number of Shares	Weighted Average Exercise Price	Remaining Contractual Term (in years)	Aggregate Intrinsic Value
Balance at December 31, 2013	6,201,429	$5.68		
Granted	2,051,925	1.27		
Exercised	(250,000)	1.20		
Forfeited	(722,487)	2.39		
Expired	(616,508)	7.27		
Balance at December 31, 2014	6,664,359	4.70	5.75	$—
Vested and expected to vest at December 31, 2014	6,426,083	4.82	5.64	—
Exercisable at December 31, 2014	4,416,231	6.30	4.28	—

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The weighted average grant date fair value per share of options granted during fiscal years 2014 , 2013 , and 2012 was $0.83 , $1.14 and $1.46 , respectively. The total intrinsic value of options exercised was $50 , $2 and $15 for the years ended December 31, 2014 , 2013 and 2012 , respectively.

A summary of information about the shares of common stock covered by outstanding and exercisable options at December 31, 2014 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
$0.55 - 1.29	627,796	8.85	$ 1.19	197,338	$ 1.24
1.33 - 1.33	1,150,000	8.97	1.33	—	—
1.34-1.64	1,108,193	5.58	1.54	983,855	1.55
1.65 - 2.66	1,622,301	5.68	2.15	1,124,512	2.19
2.72 - 9.77	1,115,402	3.73	7.54	1,069,859	7.60
10.08 - 24.97	1,040,667	2.81	14.85	1,040,667	14.85
	6,664,359	5.75	$ 4.70	4,416,231	$ 6.30

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 $2,276 , $3,122 and $3,779 for the years ended December 31, 2014 , 2013 and 2012 , respectively. At December 31, 2014 , there was approximately $2,283 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 2.39 years.

For the years ended December 31, 2014 , 2013 and 2012 , 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,		
	2014	2013	2012
Expected dividend yield	—	—	—
Risk-free rate	0.01% - 2.41%	0.71% - 2.05%	0.67% - 1.15%
Expected option term (in years)	0.1-6.1	6.0 - 6.1	5.3 - 5.5
Volatility	84% - 85%	84% - 85%	84% - 87%

The Company determined its volatility assumption based on actual market price fluctuations experienced during its trading history.

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.

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

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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.

Restricted Stock Units

On January 2, 2014, the Company awarded 600,000 restricted stock units to its Chief Executive Officer. These restricted stock units contain both market and performance conditions which are based on the achievement of certain stock price and revenue targets, respectively. The restricted stock units vest in various percentages over three years (subject to certain accelerated and continued vesting events) once the agreed-upon stock price and/or revenue based targets are achieved. To the extent that the market or performance conditions are not met by January 2, 2016, the restricted stock units will be forfeited.

The Company estimated the fair value and derived service period of the awards using a Monte Carlo valuation model. The fair value of the award is $327 . The Company is recognizing compensation expense for this award over its requisite service period, which is equal to the cumulative time expected to achieve one of the triggering conditions followed by a three year post-triggering event vesting period. The expense will be amortized for a period up to 4.28 years .

14. Income Taxes

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

	Year Ended December 31,		
	2014	2013	2012
Domestic	$ (28,741)	$ (28,200)	$ 3,502
Foreign	35	51	72
Profit (loss) before taxes	$ (28,706)	$ (28,149)	$ 3,574

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:

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	Year Ended December 31,	
	2014	**2013**
Deferred Tax Assets:		
Net operating loss carryforward	$ 6,215	$ 81,699
Capitalization of research and development expense	$ 10,250	$ 1,945
Credit carryforwards	$ 524	$ 8,118
Depreciation	$ 2,017	$ 2,403
Non-Qualified Stock Options	$ 4,484	$ 4,437
Other temporary differences	$ 1,559	$ 1,813
Total deferred tax assets.	$ 25,049	$ 100,415
Valuation allowance	$ (25,046)	$ (100,405)
Net deferred tax assets	$ 3	$ 10
Deferred Tax Liabilities:		
Other temporary differences	$ (3)	$ (10)
Net deferred taxes	$ —	$ —

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,		
	2014	**2013**	**2012**
Federal income tax at statutory federal rate	34.0 %	34.0 %	34.0 %
State taxes	7.0 %	3.8 %	7.8 %
Permanent differences	(3.9)%	(2.1)%	19.6 %
Tax credits	3.1 %	2.8 %	(10.5)%
State rate change on deferred balances	0.3 %	(0.4)%	3.1 %
Expiration of net operating losses and credits	(7.2)%	(6.3)%	49.2 %
Impact of Ownership Change	(294.9)%	0.0 %	0.0 %
Other	(1.7)%	0.2 %	9.8 %
Change in valuation allowance	263.3 %	(32.0)%	(113.0)%
Total	0.00 %	0.00 %	0.00 %

The tax years 2011 through 2014 remain open to examination by major taxing jurisdictions to which the Company is subject, which are primarily in the U.S. The statute of limitations for net operating losses utilized in future years will remain open beginning in the year of utilization.

The Company's policy is to record estimated interest and penalties related to uncertain tax positions as income tax expense. As of December 31, 2014 , 2013 and 2012 , the Company had no accrued interest or penalties recorded related to uncertain tax positions.

At December 31, 2014 , the Company had net operating loss carryforwards (NOLs) for federal, state and international income tax purposes of approximately $13,880 , $13,236 and $3,106 , respectively. Included in the federal and state net operating loss carryforwards is $548 deduction related to the exercise of stock options. This amount represents an excess tax benefit which will be realized when its results in reduction of cash taxes in accordance with ASC 718. The Company's

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existing federal and state net operating loss carryforwards will begin to expire in 2020 and 2029, respectively. The Company also had available research and development credits for federal and state income tax purposes of approximately $189 and $139 , respectively. These federal and state research and development credits will begin to expire in 2034 and 2029, respectively. As of December 31, 2014 , the Company also had available investment tax credits for state income tax purposes of $1 , which also begin to expire in 2017. 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 initial evaluation of its ownership changes through December 31, 2014 and to assess whether utilization of the Company's NOL or R&D credit carryforwards would be subject to an annual limitation under Section 382. As a result of the analysis the Company has determined that an ownership change has occurred as August 22, 2014. The resulting limitation is extremely restrictive and the Company has appropriately reduced the net operating loss, credit carryforwards and other deferred tax assets accordingly. To the extent an ownership change occurs in the future, the net operating loss, credit carryforwards and other deferred tax assets may be subject to further limitations.

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 amounts are not significant. A liability could arise if amounts are distributed by such subsidiaries or if such subsidiaries are ultimately disposed.

15. 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 350,691 , 267,329 and 179,336 shares of common stock during the twelve months ended December 31, 2014 , 2013 and 2012 , respectively, and recorded $374 , $397 and $408 , respectively, of related expense. Company contributions are fully vested upon issuance.

16. 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 is using 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 recognizes 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, 2014 , 2013 and 2012 , the Company recognized $1,240 , $1,640 and $1,578 in revenue related to this grant, respectively.

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17. Discontinued Operation

The Company decided in 2014 to discontinue its operations in Germany. Based on this strategic shift, in October 2014 the Company sold substantially all of the assets of its wholly-owned German subsidiary, Metabolix GmbH, to AKRO-PLASTIC GmbH ("Akro"), a German manufacturer of engineering plastics compounds for $292 , received in October 2014. Akro acquired the Mvera ™ B5010 and B5011 products for compostable film, as well as certain inventory, certain contracts, and the Mvera ™ trademark. Akro also took over the Metabolix GmbH employees and office space. The purpose of this sale was to simplify the Company's business structure and focus resources on the success of its core biopolymers business based on PHA performance additives. The Company will not have significant involvement in the operations formerly conducted by Metabolix GmbH.

The consolidated financial statements for each of the three years ending December 31, 2014, have been presented to reflect the operations of Metabolix GmbH as a discontinued operation. As of December 31, 2014, the assets of Metabolix GmbH had been sold. Assets of the discontinued operation available for sale at December 31, 2013 of $2,153 , primarily consist of commercial inventory and are shown in the Company's consolidated balance sheet under the caption "assets of disposal group classified as held for sale".

The following represents the major items comprising loss from discontinued operations for the years ended December 31, 2014, 2013 and 2012.

	Year Ended December 31,		
	2014	2013	2012
Total revenue	$ 1,699	$ 1,616	$ 935
Costs and expenses:			
Cost of product revenue	1,559	1,118	396
Research and development	260	325	—
Selling, general and administrative	1,593	2,135	865
Loss from write-down of assets held for sale	888	—	—
Other expense	165	—	—
Total costs and expenses	4,465	3,578	1,261
Net loss	$ (2,766)	$ (1,962)	$ (326)

The Company released $165 of cumulative translation adjustment for its discontinued operations in Germany to loss from discontinued operations in its statement of operations for the year ended December 31, 2014.

18. Restructuring

In October 2014, the Company initiated a restructuring of its U.S. organization to reflect its more narrow strategic focus on PHA performance biopolymers and to modify staffing to the level the Company believes necessary to support successful implementation of its current business strategy. The scope of the restructuring also reflected the Company's decision, consistent with its current business strategy, to suspend work in its chemicals program. The Company recognized $624 of restructuring charges during its fourth fiscal quarter of 2014 related to post-employment termination benefits in accordance with ASC 420-10, *Exit or Disposal Cost Obligations*, and there were $438 remaining balances accrued for restructuring charges at December 31, 2014, which will be paid out during 2015. The $624 in restructuring charges are reflected as $106 and $518 in research and development and selling, general, and administrative expenses, respectively.

The Company recognized $624 of restructuring charges during the year ended December 31, 2014, as follows:

METABOLIX, INC.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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

	Original Charges and Amounts Accrued	Amounts Paid through December 31, 2014	Amounts Accrued at December 31, 2014
Employee severance, benefits and related costs	$ 624	$ 186	$ 438
	$ 624	$ 186	$ 438

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	Eliminations	Total
Year Ended December 31, 2014				
Net revenues to unaffiliated customers	$ 2,668	$ 132	$ —	$ 2,800
Inter-geographic revenues	—	744	(744)	—
Net revenues	$ 2,668	$ 876	$ (744)	$ 2,800
Identifiable long-lived assets	$ 441	$ 15	$ —	$ 456
Year Ended December 31, 2013				
Net revenues to unaffiliated customers	$ 3,505	$ 273	$ —	$ 3,778
Inter-geographic revenues	—	794	(794)	—
Net revenues	$ 3,505	$ 1,067	$ (794)	$ 3,778
Identifiable long-lived assets	$ 752	$ 41	$ —	$ 793
Year Ended December 31, 2012				
Net revenues to unaffiliated customers	$ 41,201	$ 180	$ —	$ 41,381
Inter-geographic revenues	—	737	(737)	—
Net revenues	$ 41,201	$ 917	$ (737)	$ 41,381
Identifiable long-lived assets	$ 1,309	$ 49	$ —	$ 1,358

Foreign revenue is based on the country in which the Company's subsidiary that earned the revenue is domiciled. During 2014, revenue earned from the Company's REFABB grant with U.S. Department of Energy totaled $1,240 and represented 44% of total revenue for the year. During 2013, revenue earned from the Company’s REFABB grant with the U.S. Department of Energy totaled $1,640 , and represented 43% of total revenue. During 2012, the Company recognized revenue from the collaborative arrangement with U.S. based Archer Daniels Midland Company totaling $38,885 and representing 94% of total revenue for the year. The revenue had been previously deferred.

METABOLIX, INC.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(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,**
2014				
Total revenues	$ 613	$ 699	$ 632	$ 856
Loss from continuing operations	(7,491)	(6,762)	(6,708)	(5,807)
Loss from discontinued operations	(663)	(473)	(1,185)	(445)
Net loss	$ (8,154)	$ (7,235)	$ (7,893)	$ (6,252)
Basic and diluted net loss per share				
Continuing operations	(0.21)	(0.19)	(0.12)	(0.05)
Discontinued operation	(0.02)	(0.02)	(0.02)	—
Net loss per share	$ (0.23)	$ (0.21)	$ (0.14)	$ (0.05)
2013				
Total revenues	$ 1,251	$ 1,152	$ 629	$ 746
Loss from continuing operations	(6,731)	(7,348)	(6,498)	(7,967)
Loss from discontinued operations	(32)	(517)	(753)	(660)
Net loss	$ (6,763)	$ (7,865)	$ (7,251)	$ (8,627)
Basic and diluted net loss per share				
Continuing operations	(0.20)	(0.22)	(0.19)	(0.23)
Discontinued operation	—	(0.01)	(0.02)	(0.02)
Net loss per share	$ (0.20)	$ (0.23)	$ (0.21)	$ (0.25)

Revisions were made within the tables above to properly segregate the financial results of the Company's European operations that were discontinued in 2014, and to correct errors in the amounts previously reported as discontinued operations for the nine months ended September 30, 2013. The corrections were related to the quarter ended March 31, 2013 which were included in the nine months ended September 30, 2013 previously reported. The consolidated net loss and net loss per share were not impacted by the corrections. The corrections reduced total revenues from the amounts previously reported for the nine months by $716 and increased the net loss from continuing operations by $225 and decreased net loss from discontinued operations by $225 . The corrections also reduced cash flows from continuing operations by $277 and increased cash flows from discontinued operations by $277 . The revisions to the consolidated unaudited quarterly financial statements noted above represent errors that are deemed to be immaterial, both individually or in the aggregate, to the previously issued statements.

Full year amounts may not sum due to rounding.

Metabolix®
Bio-industrial Evolution™

January 5, 2015

Charles B. Haaser
Metabolix, Inc.
21 Erie Street
Cambridge, MA 02139

Re: Severance Agreement

Dear Chuck:

Metabolix, Inc. (the "Company") believes that it is in the best interests of the Company to provide you with certain severance benefits in the event of a termination of your employment without Cause or in connection with a Change of Control (each as defined below), in order to provide you with financial security and sufficient encouragement to remain with the Company.

Therefore, you and the Company agree as follows:

1. Change of Control Severance Benefits.

In the event that your employment is terminated by the Company without Cause or by you for Good Reason within 12 months immediately following or 6 months immediately prior to a Change of Control (each as defined herein), and contingent on your executing a complete release of claims against the Company within thirty (30) days after the date of termination, and provided you do not revoke such release (a fully effective release is hereafter referred to as the "Release"), then, in addition to any accrued salary and benefits otherwise payable to you by law or pursuant to the Company's benefit plans as in effect at the date of termination:

(a) the Company shall continue your base salary at the rate in effect at the date of termination for a period of twelve (12) months from the date of termination, and such salary continuation shall commence on the 37th day after the date on which your employment terminates and shall be paid in accordance with the Company's normal payroll practice, provided that the first payment will include all amounts which would have been paid in the 37 days following your termination of employment;

(b) the Company shall pay COBRA premiums to maintain medical and dental benefits, if any, in effect at the time of termination until the earlier of (i) twelve (12) months following the date of termination, or (ii) the date you become insured under a medical insurance plan providing similar benefits to that of the Company plan; and

(c) the Company shall cause the full vesting of all your unvested equity, including but not limited to any options or restricted stock granted to you under the 2006 Stock Option and Incentive Plan, the 2014 Stock Option and Incentive Plan, and any other authorized stock plan, provided that the conditions to vesting other than the passage of time have been satisfied.

2. Termination without Cause.

In the event that your employment is terminated by the Company without Cause (other than in connection with a Change of Control as provided in Section 1), and contingent on your executing a Release within thirty (30) days after the date of termination, and provided you do not revoke such Release, then, in addition to any accrued salary and benefits otherwise payable to you by law or pursuant to the Company's benefit plans as in effect at the date of termination:

(a) the Company shall continue your base salary at the rate in effect at the date of termination for a period of twelve (12) months from the date of termination, and such salary continuation shall commence on the 37 th day after the date on which your employment terminates and shall be paid in accordance with the Company's normal payroll practice, provided that the first payment will include all amounts which would have been paid in the 37 days following your termination of employment; and

(a) the Company shall pay COBRA premiums to maintain medical and dental benefits, if any, in effect at the time of termination until the earlier of (i) twelve (12) months following the date of termination, or (ii) the date you become insured under a medical insurance plan providing comparable benefits to that of the Company plan.

3. Definitions.

3.1. " Cause " for termination shall be limited to the following:

(a) Your conviction of a felony; or

(b) Your commission of fraud, or misconduct that results in material and demonstrable damage to the business or reputation of the Company; or

(c) Your willful and continued failure to perform your duties to the Company (other than such failure resulting from your incapacity due to disability, as determined by the Company's disability insurance provider) within 10 business days after the Company delivers a written demand for performance to you that specifically identifies the actions to be performed.

3.2. " Change of Control ". As used herein, a "Change of Control" shall occur or be deemed to have occurred only upon any one or more of the following events:

(a) any "person" (as such term is used in Sections 13(d) and 14(d)(2) of the Securities Exchange Act of 1934, as amended (the "Exchange Act")) becomes a "beneficial owner" (as such term is defined in Rule 13d-3 promulgated under the Exchange Act) (other than the Company, any trustee or other fiduciary holding securities under an employee benefit plan of the Company, or any corporation owned, directly or indirectly, by the stockholders of the Company, in substantially the same proportions as their ownership of stock of the Company), directly or indirectly, of securities of the Company, representing fifty percent (50%) or more of the combined voting power of the Company's then outstanding securities; or

(b) persons who, as of the effective date of this agreement, constitute the Company's Board of Directors (the "Incumbent Board") cease for any reason including, without limitation, as a result of a tender offer, proxy contest, merger, consolidation or similar transaction, to constitute at least a majority of the Board of Directors, provided that any person becoming a director of the Company subsequent to the effective date of this agreement whose election is approved by at least a majority of the directors then comprising the Incumbent Board shall, for purposes of this Section 6(f), be considered a member of the Incumbent Board; or

(c) the consummation of a merger or consolidation of the Company with any other corporation or other entity, other than (1) a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity) more than fifty percent (50%) of the combined voting power of the voting securities of the Company or such surviving entity outstanding immediately after such merger or consolidation or (2) a merger or consolidation effected to implement a recapitalization of the Company (or similar transaction) in which no "person" (as hereinabove defined) acquires more than fifty percent (50%) of the combined voting power of the Company's then outstanding securities; or

(d) the stockholders of the Company approve a plan of complete liquidation of the Company or an agreement for the sale or disposition by the Company of all or substantially all of the Company's assets.

3.3. " Good Reason " shall mean that you means that you have complied with the 'Good Reason Process' (hereinafter defined) following the occurrence of any of the following events: (i) a material diminution in your responsibilities, authority or duties; (ii) a material diminution in your Base Salary; (iii) a material change in the geographic location at which you provide services to the Company; or (iv) the material breach of this Agreement by the Company. ' Good Reason Process ' shall mean that (i) you reasonably determine in good faith that a 'Good Reason' condition has occurred; (ii) you notify the Company in writing of the occurrence of the Good Reason condition within 60 days of the occurrence of such condition; (iii) you cooperate in good faith with the Company's efforts, for a period not less than 30 days following such notice (the ' Cure Period '), to remedy the condition; (iv)

notwithstanding such efforts, the Good Reason condition continues to exist; and (v) you terminate your employment within 60 days after the end of the Cure Period. If the Company cures the Good Reason condition during the Cure Period, Good Reason shall be deemed not to have occurred.

4. Taxes .

4.1. 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 reasonably determine it should 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.

4.2. Notwithstanding anything set forth in 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).

4.3. Notwithstanding anything set forth in this Agreement, 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. Solely for purposes of Section 409A of the Code, each installment payment described in Section 5 is considered a separate payment.

5. At-Will Employment . The Company and you acknowledge that, notwithstanding anything contained in this Agreement, your employment with the Company is and shall be at-will, as defined under applicable law. Nothing in this Agreement is intended to provide you with any right to continue in the employ of the Company for any period of specific duration or interfere

with or otherwise restrict in any way your rights or the rights of the Company, which rights are hereby expressly reserved by each, to terminate your employment at any time and for any reason. If your employment terminates for any reason, you shall not be entitled to any payments, benefits, damages, awards or compensation other than as provided by this Agreement, or as may otherwise be established under the Company's then existing employee benefit plans or policies at the time of termination.

6. General.

6.1. Entire Agreement . This Agreement embodies the entire agreement and understanding between you and the Company with respect to the subject matter hereof and supersedes all prior oral or written agreements and understandings relating to the subject matter hereof, including without limitation the Severance Agreement dated May 28, 2013, which is hereby terminated.

6.2. Modifications, Amendments, Waivers . The terms and provisions of this Agreement may be modified or amended only by written agreement executed by you and the Company. 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.

6.3. Assignment . 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 or that part of the Company's business in which you are principally involved and may assign its rights and obligations hereunder to any Company affiliate. You may not assign your rights and obligations under this Agreement without the prior written consent of the Company and any such attempted assignment by you without the prior written consent of the Company will be void. Notwithstanding the foregoing, the terms of this Agreement and your rights hereunder shall inure to the benefit of, and be enforceable by, your personal or legal representatives, executors, administrators, successors, heirs, and legatees.

6.4. 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.

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

Very truly yours,

Metabolix, Inc.

By: /s/ Joseph Shaulson
Joseph Shaulson, CEO

Accepted and agreed:

/s/ Charles B. Haaser
Charles B. Haaser

Date: 2/4/2015

INCENTIVE STOCK OPTION AWARD CERTIFICATE

UNDER THE METABOLIX, INC.
2014 STOCK OPTION AND INCENTIVE PLAN

Pursuant to the Metabolix, Inc. 2014 Stock Option and Incentive Plan, as amended through the date hereof (the "Plan"), Metabolix, Inc. (the "Company") hereby grants to the Optionee named in the attached Notice of Grant an option (the "Stock Option") to purchase on or prior to the Expiration Date specified in the attached Notice of Grant all or part of the number of shares of Common Stock, par value $0.01 per share, of the Company (the "Stock") specified in the attached Notice of Grant, at the Option Exercise Price per Share specified in the attached Notice of Grant, subject to the terms and conditions set forth herein and in the Plan. Capitalized terms in this Certificate shall have the meaning specified in the Plan, unless a different meaning is specified herein.

1. 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 Administrator to accelerate the exercisability schedule hereunder, this Stock Option shall vest and become exercisable with respect to the Option Shares as set forth in the attached Notice of Grant. 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 and of the Plan.

2. Manner of Exercise .

(a) The Optionee may exercise this Stock Option only in the manner set forth in the Plan.

(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 compliance to the satisfaction of the Administrator with all requirements under applicable laws or regulations in connection with such issuance and with the requirements hereof and of the Plan. The determination of the Administrator as to such compliance shall be final and binding on the Optionee. 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 and until this Stock Option shall have been exercised pursuant to the terms hereof, the Company or the transfer agent shall have transferred the shares to the Optionee, and the Optionee's name shall have been entered as the stockholder of record on the books of the Company. Thereupon, the Optionee shall have full voting, dividend and other ownership rights with respect to such shares of Stock.

(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 or of the Plan, no portion of this Stock Option shall be exercisable after the Expiration Date hereof.

3. Termination of Employment . If the Optionee's employment by the Company or a Subsidiary (as defined in the Plan) is terminated, the period within which to exercise the Stock Option shall be subject to earlier termination as set forth below.

(a) Termination Due to Death . If the Optionee's employment terminates by reason of the Optionee's death, any exercisable portion of this Stock Option outstanding on such date may be exercised by the Optionee's legal representative or legatee for a period of 12 months from the date of death or until the Expiration Date, if earlier.

(b) Termination Due to Disability . If the Optionee's employment terminates by reason of the Optionee's disability (as determined by the Administrator), any exercisable portion of this Stock Option outstanding on such date may be exercised by the Optionee for a period of 12 months from the date of termination or until the Expiration Date, if earlier. The death of the Optionee during the 12-month period provided in this Section 3(b) shall extend such period for another 12 months from the date of death or until the Expiration Date, if earlier.

(c) Termination for Cause . If the Optionee's employment terminates for Cause, any portion of this Stock

Option outstanding on such date shall terminate immediately and be of no further force and effect. For purposes hereof, "Cause" shall mean a determination by the Company that the Optionee shall be dismissed as a result of (i) any material breach by the Optionee of any agreement between the Optionee and the Company; (ii) the conviction of, indictment for or plea of nolo contendere by the Optionee to a felony or a crime involving moral turpitude; or (iii) any material misconduct or willful and deliberate non-performance (other than by reason of disability) by the Optionee of the Optionee's duties to the Company; provided, however, that if "Cause" is defined in an employment agreement between the Optionee and the Company or a Subsidiary, then "Cause" shall have the meaning set forth in such employment agreement.

(d) Other Termination . If the Optionee's employment terminates for any reason other than the Optionee's death, the Optionee's disability, or Cause, and unless otherwise determined by the Administrator, 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.

The Administrator's determination of the reason for termination of the Optionee's employment shall be conclusive and binding on the Optionee and his or her representatives or legatees.

4. Transferability . This Stock Option 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.

5. Status of the Stock Option . This Stock Option is intended to qualify as an "incentive stock option" under Section 422 of the Internal Revenue Code of 1986, as amended (the "Code"), but the Company does not represent or warrant that this Stock Option qualifies as such. The Optionee should consult with his or her own tax advisors regarding the tax effects of this Stock Option and the requirements necessary to obtain favorable income tax treatment under Section 422 of the Code, including, but not limited to, holding period requirements. To the extent any portion of this Stock Option does not so qualify as an "incentive stock option," such portion shall be deemed to be a non-qualified stock option. If the Optionee intends to dispose or does dispose (whether by sale, gift, transfer or otherwise) of any Option Shares within the one-year period beginning on the date after the transfer of such shares to him or her, or within the two-year period beginning on the day after the grant of this Stock Option, he or she will so notify the Company within 30 days after such disposition.

6. 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 Administrator for payment of any Federal, state, and local taxes required by law to be withheld on account of such taxable event. 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. 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 withholding amount due.

7. No Obligation to Continue Employment . Neither the Company nor any Subsidiary is obligated by or as a result of the Plan or this Certificate to continue the Optionee in employment and neither the Plan nor this Certificate shall interfere in any way with the right of the Company or any Subsidiary to terminate the employment of the Optionee at any time.

8. 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.

9. Incorporation of Plan . Notwithstanding anything herein to the contrary, this Stock Option shall be subject to and governed by all the terms and conditions of the Plan, including the powers of the Administrator set forth in Section 2(b) of the Plan.

EMPLOYEE NON-QUALIFIED STOCK OPTION AWARD CERTIFICATE

UNDER THE METABOLIX, INC.
2014 STOCK OPTION AND INCENTIVE PLAN

Pursuant to the Metabolix, Inc. 2014 Stock Option and Incentive Plan, as amended through the date hereof (the "Plan"), Metabolix, Inc. (the "Company") hereby grants to the Optionee named in the attached Notice of Grant an option (the "Stock Option") to purchase on or prior to the Expiration Date specified in the attached Notice of Grant all or part of the number of shares of Common Stock, par value $0.01 per share, of the Company (the "Stock") specified in the attached Notice of Grant, at the Option Exercise Price per Share specified in the attached Notice of Grant, subject to the terms and conditions set forth herein and in the Plan. Capitalized terms in this Certificate shall have the meaning specified in the Plan, unless a different meaning is specified herein.

1. 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 Administrator to accelerate the exercisability schedule hereunder, this Stock Option shall vest and become exercisable with respect to the Option Shares as set forth in the attached Notice of Grant. 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 and of the Plan.

2. Manner of Exercise .

(a) The Optionee may exercise this Stock Option only in the manner set forth in the Plan.

(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 compliance to the satisfaction of the Administrator with all requirements under applicable laws or regulations in connection with such issuance and with the requirements hereof and of the Plan. The determination of the Administrator as to such compliance shall be final and binding on the Optionee. 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 and until this Stock Option shall have been exercised pursuant to the terms hereof, the Company or the transfer agent shall have transferred the shares to the Optionee, and the Optionee's name shall have been entered as the stockholder of record on the books of the Company. Thereupon, the Optionee shall have full voting, dividend and other ownership rights with respect to such shares of Stock.

(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 or of the Plan, no portion of this Stock Option shall be exercisable after the Expiration Date hereof.

3. Termination of Employment . If the Optionee's employment by the Company or a Subsidiary (as defined in the Plan) is terminated, the period within which to exercise the Stock Option shall be subject to earlier termination as set forth below.

(a) Termination Due to Death . If the Optionee's employment terminates by reason of the Optionee's death, any exercisable portion of this Stock Option outstanding on such date may be exercised by the Optionee's legal representative or legatee for a period of 12 months from the date of death or until the Expiration Date, if earlier.

(b) Termination Due to Disability . If the Optionee's employment terminates by reason of the Optionee's disability (as determined by the Administrator), any exercisable portion of this Stock Option outstanding on such date may be exercised by the Optionee for a period of 12 months from the date of termination or until the Expiration Date, if earlier. The death of the Optionee during the 12-month period provided in this Section 3(b) shall extend such period for another 12 months from the date of death or until the Expiration Date, if earlier.

(c) Termination for Cause . If the Optionee's employment terminates for Cause, any portion of this Stock

Option outstanding on such date shall terminate immediately and be of no further force and effect. For purposes hereof, "Cause" shall mean a determination by the Company that the Optionee shall be dismissed as a result of (i) any material breach by the Optionee of any agreement between the Optionee and the Company; (ii) the conviction of, indictment for or plea of nolo contendere by the Optionee to a felony or a crime involving moral turpitude; or (iii) any material misconduct or willful and deliberate non-performance (other than by reason of disability) by the Optionee of the Optionee's duties to the Company; provided, however, that if "Cause" is defined in an employment agreement between the Optionee and the Company or a Subsidiary, then "Cause" shall have the meaning set forth in such employment agreement.

(d) Other Termination . If the Optionee's employment terminates for any reason other than the Optionee's death, the Optionee's disability, or Cause, and unless otherwise determined by the Administrator, 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.

The Administrator's determination of the reason for termination of the Optionee's employment shall be conclusive and binding on the Optionee and his or her representatives or legatees.

4. Transferability . This Stock Option 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.

5. Status of the Stock Option . This Stock Option is not intended to be an "incentive stock option" under Section 422 of the Internal Revenue Code of 1986, as amended.

6. 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 Administrator for payment of any Federal, state, and local taxes required by law to be withheld on account of such taxable event. 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.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 withholding amount due.

7. No Obligation to Continue Employment . Neither the Company nor any Subsidiary is obligated by or as a result of the Plan or this Certificate to continue the Optionee in employment and neither the Plan nor this Certificate shall interfere in any way with the right of the Company or any Subsidiary to terminate the employment of the Optionee at any time.

8. 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.

9. Incorporation of Plan . Notwithstanding anything herein to the contrary, this Stock Option shall be subject to and governed by all the terms and conditions of the Plan, including the powers of the Administrator set forth in Section 2(b) of the Plan.

RESTRICTED STOCK UNIT AWARD CERTIFICATE
FOR COMPANY EMPLOYEES

METABOLIX, INC. 2014 STOCK OPTION AND INCENTIVE PLAN

Pursuant to the Metabolix, Inc. 2014 Stock Option and Incentive Plan, as amended through the date hereof (the "Plan"), Metabolix, Inc. (the "Company") hereby grants an award of the number of Restricted Stock Units specified in the attached Notice of Grant (an "Award") to the Grantee named in the Notice of Grant. 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) , subject to the terms and conditions set forth herein and in the Plan.

1. Defined Terms . Capitalized terms in this Certificate shall have the meaning specified in the Plan, unless a different meaning is specified herein.

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 Paragraph 4 below, the restrictions and conditions of Paragraph 2 of this Agreement shall lapse on the vesting date or dates specified in the attached Notice of Grant 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. The Administrator shall have the power and authority to accelerate at any time the vesting of all or any Restricted Stock Units.

4. Termination of Employment . If the Grantee's employment terminates for any reason, including without limitation termination by reason of death or disability, then unless otherwise determined by the Administrator, all unvested Restricted Stock Units shall terminate immediately and be of no further force and effect.

5. 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 Paragraph 3 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).

6. Tax Withholding . Promptly following each vesting date, the Grantee shall pay to 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. Unless the Grantee notifies the Company at least 30 days prior to the applicable vesting date of his or her intention to make such payment or arrangement, the Company shall cause the required minimum tax withholding obligation to be satisfied 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.

7. 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.

8. 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.

9. Integration . This Agreement constitutes the entire agreement between the parties with respect to this Award and supersedes all prior agreements and discussions between the parties concerning such subject matter.

10. Data Privacy Consent . In order to administer this Award 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 accepting this Award, 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.

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 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.

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, 333-187589, 333-194858, and 333-194859) of Metabolix, Inc. of our report dated March 25, 2015 relating to the financial statements, which appear in this Form 10-K.

/s/PricewaterhouseCoopers LLP

Boston, Massachusetts
March 25, 2015

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 25, 2015

/s/ JOSEPH SHAULSON

Name: Joseph Shaulson

Title: *President and Chief Executive Officer (Principal Executive Officer)*

EXHIBIT 31.2

CERTIFICATIONS

I, Charles B. Haaser, 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 25, 2015

/s/ CHARLES B. HAASER

Name: Charles B. Haaser

Title: *Chief Accounting Officer*
(Principal Financial and Accounting Officer)

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, 2014 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 Charles B. Haaser, Chief Accounting 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.

Date: March 25, 2015 By: /s/ JOSEPH SHAULSON

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

Date: March 25, 2015 By: /s/ CHARLES B. HAASER

Charles B. Haaser
Chief Accounting Officer (Principal Financial and Accounting Officer)