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[METABOLIX, INC.](#)

**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, 2007; 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**

(State or other jurisdiction of incorporation or organization)

**04-3158289**

(I.R.S. Employer Identification No.)

**21 Erie Street  
Cambridge, MA**

(Address of principal executive offices)

**02139**

(Zip Code)

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

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

Common Stock, par value \$.01 per share

The NASDAQ Stock Market LLC

**Title of each class**

**Name of exchange on which registered**

**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 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   
(Do not check if a smaller reporting  
company)

Smaller reporting company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of Act). Yes  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 29, 2007 was \$370.9 million.

The number of shares outstanding of the registrant's common stock as of February 29, 2008 was 22,262,664.

## 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 2008 Annual Meeting of Stockholders to be held on May 30, 2008 are incorporated herein by reference into Part III of this report.

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METABOLIX, INC.

ANNUAL REPORT ON FORM 10-K

For the Year Ended December 31, 2007

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## Forward Looking Statements

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

Although we believe that our expectations are based on reasonable assumptions within the bounds of our knowledge of our business and operations, the forward-looking statements contained in this document are neither promises nor guarantees. Our business is subject to significant risk and uncertainties and there can be no assurance that our actual results will not differ materially from our expectations. These forward looking statements include, but are not limited to, statements concerning: future financial performance and position, management's strategy, plans and objectives for future operations, plans and objectives for product development and commercialization, plans and objectives for present and future research and development and results of such research and development, plans and objectives for manufacturing, the commercialization of environmentally sustainable, economically attractive alternatives to petroleum-based plastics, chemicals and energy, the commercialization of Mirel™ biobased plastic through our alliance with Archer Daniels Midland Company, or ADM, sales of Mirel as an alternative to petroleum-based plastics, the construction of the Commercial Manufacturing Facility, the production of Mirel at the Commercial Manufacturing Facility, the commercial success of Mirel, the feasibility of extracting biobased plastic from plant crops, the commercial viability of plant-produced plastics, recognition of revenue, and management's plans and expectations for revenue from government grants, research and development revenue, research and development expenses and capital and working capital requirements. 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, the following risks: (1) we may not be successful at manufacturing biobased plastics on a commercial scale in a timely and economical manner, (2) we may not be successful in the development of our products, including Mirel, (3) we depend on ADM for the construction of the Commercial Manufacturing Facility, (4) if ADM does not build the Commercial Manufacturing Facility on time and on budget, our revenues and the distribution of profits, if any, to us will be delayed, (5) we may not be able to develop manufacturing capacity sufficient to meet demand in an economical manner or at all, (6) we may not achieve market acceptance of our products, (7) we have limited marketing and sales experience and capabilities, which may make the commercialization of our products difficult, (8) we rely heavily on ADM and will rely heavily on future collaborative partners, (9) our success will be influenced by the price of petroleum, the primary ingredient in conventional petroleum-based plastics, relative to corn sugar, the primary ingredient in Mirel, (10) our future profitability is uncertain, and we have a limited operating history on which you can base your evaluation of our business, (11) we may need to secure additional funding and may be unable to raise additional capital on favorable terms or at all, (12) if we lose key personnel or are unable to attract and retain necessary talent, we may be unable to develop or commercialize our products under development, (13) confidentiality agreements with employees and others may not adequately prevent disclosure of our trade secrets and other proprietary information and may not adequately protect our intellectual property, which could limit our ability to compete, (14) patent protection for our products is important and uncertain, (15) a substantial portion of the technology used in our business is owned by or subject to retained rights of third parties, (16) third parties may claim we infringe their intellectual property, and we could suffer significant litigation or licensing expense as a result, (17) if we are unable to manage our growth effectively, our business could be adversely affected, (18) we may

not be successful in identifying market needs for new technologies and developing new products to meet those needs, (19) Mirel is made using genetically modified products and may be, or may be perceived as being, harmful to human health or the environment, (20) we face and will face substantial competition in several different markets that may adversely affect our results of operations, (21) we are subject to significant foreign and domestic government regulations, including environmental and health and safety regulations, and compliance or failure to comply with these regulations could harm our business, (22) our government grants may subject us to government audits, which could materially harm our business and results of operations, (23) we face risks associated with our international business, (24) our pre-commercial manufacturing recovery operations are currently conducted at a single location which makes us susceptible to disasters, and (25) we may be subject to product liability claims based on products sold by us, our customers and/or our licensees.

The forward-looking statements and risks 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.

**ITEM 1. BUSINESS****Overview**

We are a bioscience company that develops and plans to commercialize environmentally sustainable, economically attractive alternatives to petroleum-based plastics, chemicals and energy. Our strategy is to develop technology platforms that integrate advanced biotechnology with current industrial practice and to commercialize these platforms with industry leading strategic partners.

Our first platform, which we are commercializing through Telles, a joint venture with Archer Daniels Midland Company, or ADM, is a proprietary, large-scale microbial fermentation system for producing a versatile family of polymers known as polyhydroxyalkanoates, which we have branded under the name Mirel™. Through Telles, we intend to sell these bioplastics as environmentally friendly, but functionally equivalent, alternatives to petroleum-based plastics in a wide range of commercial applications, including packaging, consumer goods, consumer electronics, products used in agriculture and horticulture, and marine and water applications. Mirel will be produced in a 110 million pound annual capacity commercial scale plant, or Commercial Manufacturing Facility, which is presently under construction by ADM in Clinton, Iowa. The timing of product availability from the Commercial Manufacturing Facility has been projected to be December 2008. However, much of the current construction work at Clinton has been impacted by this year's harsh Midwest winter, and ADM is in the process of re-evaluating construction timing for the Clinton project. The Commercial Manufacturing Facility will produce biobased, sustainable and biodegradable Mirel plastic out of corn sugar, an abundant agriculturally-produced renewable resource. We are currently producing pre-commercial quantities of Mirel jointly with ADM at a small scale pre-commercial manufacturing facility.

Our second technology platform, which is in an early stage, is a biomass biorefinery system using plant crops to co-produce both bioplastics and bioenergy. For this system, we intend to extract polymer from the engineered plant crop, so that the remaining plant material can be used as a biomass feedstock for the production of bioenergy products including electricity and biofuel. We are engineering switchgrass to produce bioplastics in the leaf and stem of the plant. We also have a collaboration with the Australian Cooperative Research Centre to do the same in sugarcane, and we have recently established a strategic research collaboration with the Donald Danforth Plant Science Center to develop an advanced industrial oilseed crop for co-production of bioplastics along with vegetable oil, biodiesel fuel, or oleochemicals. Switchgrass is a commercially and ecologically attractive, non-food energy crop that is indigenous to North America and is generally considered to be a leading candidate for cellulose-derived production of ethanol and other biofuels. Sugarcane is an established energy crop that is well suited for tropical regions of the world. We believe that using these crops to co-produce bioplastics with bioenergy products can offer superior economic value and productivity as compared to single product systems that produce them individually. We have been working on our biomass biorefinery platform using switchgrass for several years, and we believe that we are a scientific leader in this field. Our goals for this program are to have commercially viable plant varieties in pre-commercial field trials in three to four years. We may also seek to establish alliances with partners to commercially exploit this platform.

As demonstrated by our first two technology platforms, we take an integrated systems approach to our technology development. We are focused on developing entire production systems from gene to end product as opposed to developing specific technologies (for example, gene sequencing, shuffling or directed evolution) or singular aspects of a product's production (for example, providing a key enzyme, catalyst or ingredient). We believe this systems approach optimizes manufacturing productivity and, when commercialized, will enable us to capture more economic value from any platform that we pursue. 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 biotechnology with chemical engineering and industrial practice. We believe that our approach can be applied to chemicals and other products to help establish and grow environmentally sustainable plastics, chemicals and energy industries.

We intend to apply our core capabilities in microbial engineering and plant transformation to develop biological routes to other chemicals and chemical intermediates. In September 2007 the U.S. Department of Commerce's National Institute of Standards and Technology approved a \$2 million award for us to develop a commercially viable process for producing biobased chemicals from renewable agricultural products. This award will fund our integrated bio-engineered chemicals program, which is beginning development of sustainable solutions for widely used four-carbon industrial chemicals.

To exploit our first technology platform, we are working with ADM to build the Commercial Manufacturing Facility in Clinton, Iowa. The bioplastics that this facility will produce are highly versatile and range in properties from hard and strong to soft and flexible. These properties allow for a wide variety of commercial applications, offering an environmentally-friendly alternative to petroleum-derived synthetic materials which are not biodegradable. Through Telles we intend to initially position Mirel as a premium priced specialty material catering to customers who want to match the functionality of petroleum-based plastic, but add the dimension of environmental responsibility to their products and brands.

With ADM we have initiated product and business development activities including production of pre-commercial amounts of Mirel, working with potential customers, and initiation of qualification trials of our material for selected customer applications. We expect that our products will initially be sold to companies that are:

- establishing themselves as leaders of the emerging market trend toward environmentally responsible products and services;
- addressing current or anticipated regulatory pressure to shift to more sustainable industry; and/or
- selling products where biodegradability is a key functional requirement.

We have a current pipeline of prospective customers that reflect each of these traits.

## **Market Opportunity**

### ***Emerging Issues Surrounding Petrochemicals***

The markets for petroleum-based plastics, chemicals and energy are among the largest in the global economy. While these markets encompass a diverse array of products, they are all derived from fossil feedstocks, particularly petroleum and natural gas. The prolonged broad use of these petroleum-based products has created several economic, social and environmental issues, including plastic waste management and pollution, rising fossil fuel prices, energy security and climate change. These issues have resulted in rising levels of interest in product alternatives that are biobased, sustainable and biodegradable, unlike fossil fuels.

*Plastic Waste Management and Pollution*—According to the U.S. Environmental Protection Agency, 28.9 million tons of plastic solid waste was deposited into the U.S. municipal solid waste stream in 2005. Plastics are a rapidly growing contributor to U.S. municipal solid waste, having increased from less than 1% in 1960 to over 11.8% by weight in 2005. In spite of intensive efforts to promote collection and recycling, only 1.7 million tons of plastic or 5.7% of plastic solid waste was recycled that year. While the balance is mostly deposited in landfills and waste treatment facilities, many plastic items, particularly single use items such as bottles and caps, cups, lids and straws, and grocery bags

become litter in the environment where they can become a significant problem. Plastic waste can create a significant monetary burden on state and local governments. This situation has led California and local jurisdictions within California to consider legislation banning the use of such plastic items or imposing significant taxes on them. San Francisco currently has a ban on plastic bags in grocery stores and chain pharmacies, and Los Angeles is considering similar legislation.

Moreover, current disposal methods may have adverse consequences to people's health, safety and the environment. Most wastes are placed in landfills or burned in incinerators. The burning process may produce dioxins and other hazardous substances that are released into the environment. In addition, landfills are filling up and requiring more land sources. Though attempts to slow the growth of landfills have led to recycling legislation, it is still recognized that other solutions will need to be pursued to address the problem.

The threat that petroleum-based plastics pose to the marine ecosystem has been well documented. 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 large quantities in certain parts of the ocean, and marine birds and mammals have been found killed by ingesting or getting tangled in plastic debris. Los Angeles County is now under court order to clean up the plastic waste in the Los Angeles River, at an estimated cost of \$2 to \$3 billion.

*The Rising Cost of Fossil Fuel*—World oil prices have increased from an average of \$36 per barrel in 2004 to over \$100 per barrel during 2008. Declining domestic production in the United States, higher demand in the developed world, rising demand in emerging markets, the increasing cost of drilling activities, underinvestment in infrastructure, and the increasing proportion of hydrocarbon reserves in politically unstable regions are all stimulating an environment of rising and increasingly volatile oil and natural gas prices. The lack of substantial excess supply leaves the existing petrochemical market subject to the significant risk of supply disruptions or dramatically higher oil prices. Because fossil fuels are the primary feedstock for the plastics industry, polymer prices have also been experiencing increases in both level and volatility.

*Energy Security*—There is a growing view that developing alternatives to fossil fuel is a matter of national security. While the United States accounts for just 5% of the world's population and 2% of the world's oil reserves, the United States consumes 25% of world oil production. The majority of the U.S. oil needs are imported, with significant supplies coming from unstable or politically risky parts of the world (the Middle East, Nigeria, Venezuela, and Russia), presenting risks to the economy and national security. Furthermore, oil is a finite resource, and there is growing evidence that the natural peak for production may occur within the next 20 years.

*Climate Change*—There is a growing scientific consensus that global climate change is occurring and that the rise in carbon dioxide emissions over the last 100 years has contributed to this situation. A significant source of CO<sub>2</sub> emissions comes from the use of fossil fuel. The broad acceptance of the Kyoto protocol is evidence of the widespread concern for global climate change in the industrialized world. In the United States, companies have started to account for carbon emissions, to prepare for carbon limits and credit trading schemes, and to seek solutions for reducing their carbon emission profile.

### ***The Plastics Market***

The plastics market is a large and global marketplace consisting of a broad range of polymer resins. The market includes several widely used, high volume commodity resins and numerous lower volume, higher performance resins targeting specialized end uses. Over the past forty years the plastics



market has posted relatively consistent growth driven by a number of important fundamental factors including:

- replacement of traditional materials (glass, steel, aluminum, paper) with lower weight, higher performance plastics;
- increased health and safety requirements necessitating improved consumer packaging;
- consumer demand for enhanced appearance and aesthetics which can be achieved with plastic materials; and
- demand for more durable and functional materials in consumer durable and non-durable products.

The growth in plastic use has generally exceeded overall economic growth as plastics have entered numerous new markets and product applications based on their functionality and ability to meet numerous user requirements.

There are many different categories of plastics sold into the market today, but they are generally categorized into two broad groups: commodity polymers and specialty polymers. The most commonly known commodity polymers include polyethylene, polypropylene, polystyrene, PET and polyvinyl chloride. The commodity polymers are high volume resins which tend to be lower value-added materials produced in volumes of tens of billions of pounds per year. The global market for plastics for use in compostable bags, cosmetics packaging, card stock, consumer electronics, agricultural/horticultural applications and marine/water applications alone is approximately two billion pounds per year, with a growth rate of 5% annually. Specialty polymer pricing varies widely based on the type of resin and the performance characteristics offered by the material. However, these resins are typically priced at a premium to commodity plastics and, according to *Plastics Technology*, were selling at values starting above \$0.80 per pound and reaching as high, in some cases, as \$3.60 per pound in June 2006. In contrast, the commodity grade resins were generally priced at less than \$1.00 per pound at that time. Pricing has been volatile due to fluctuations in raw materials costs and supply/demand characteristics.

### ***Fuels and Bioenergy Markets***

According to the U.S. Department of Energy's Report on International Energy Outlook dated May 2007, worldwide demand for oil is expected to rise by over 40% from 83 million barrels a day in 2004 to 118 million barrels a day in 2030. The issues surrounding petroleum discussed above have given rise to increasing demand for fuels produced from renewable sources. Many states are considering legislation to capitalize on the environmental and energy security benefits of renewable fuels by requiring their use.

In December of 2007, President Bush signed into law H.R. 6, the "Energy Independence and Security Act," which includes a historic Renewable Fuels Standard (RFS) calling for at least 36 billion gallons of ethanol to be used nationwide by 2022. The new RFS schedule calls for a minimum of 9 billion gallons of ethanol to be used nationwide in 2008, 20.5 billion gallons by 2015, and a total of 36 billion gallons by 2022. This long-term growth plan for ethanol is intended to spur its commercialization from cellulosic feedstocks such as native grasses, crop residues, forestry waste, and many other materials from all regions of the country. The National Commission on Energy Policy estimates that the new RFS and the increased fuel efficiency standards in the bill will reduce domestic oil use by 5 million barrels per day by 2030, save consumers \$161 billion annually in fuel costs by 2030, and reduce the nation's carbon dioxide emissions by 320 million metric tons in 2020.

While ethanol is typically produced from starch contained in grains such as corn and grain sorghum, it can also be produced from cellulose. Cellulose is the main component of plant cell walls and is the most common organic compound on earth. The production of ethanol from corn is a mature

technology that is not likely to see significant reductions in production cost. The ability to produce ethanol from low-cost biomass will be an important factor in making it competitive as a gasoline additive.

Oilseed crops are of importance for feed, food and industrial applications. The chemical conversion of vegetable oils to a variety of oleochemicals is already well established. A very important and growing area of application is the production of biodiesel by transesterification of vegetable oils with either methanol or ethanol to produce the corresponding methyl or ethyl esters. Biodiesel is a very good fuel that reduces ground level ozone, reduces our reliance on petrochemical resources, and reduces greenhouse gas emissions. The energy content is only slightly less than conventional diesel. With the help of federal tax incentives, the U.S. demand is continuing to grow at double digit rates from a low base of 110 million gallons and is expected to increase to over 300 million gallons over the next few years according to the National Biodiesel Board.

### **The Metabolix Solution**

We are developing and are beginning to commercialize economically attractive, environmentally sustainable alternatives to petroleum-based plastics that are biobased, biodegradable and functionally equivalent to traditional petroleum-based plastics. The use of a renewable agricultural feedstock as a manufacturing input and the biodegradability of our plastics can potentially address many of the issues associated with petroleum-based products. Our first product, which we will be commercializing through Telles, our joint venture with ADM, is Mirel bioplastic, produced from corn sugar using our proprietary, large-scale microbial fermentation system. We are also developing a proprietary platform technology for co-producing plastics, chemicals and energy in crops such as switchgrass, sugarcane, and oilseeds.

***A Solution to Plastic Waste and Pollution from Persistent Plastics***—Mirel is biodegradable under a wide variety of conditions and therefore offers new options for addressing the burdens of traditional plastic solid waste on the municipal waste stream and the dangers posed within the marine ecosystem. For example, Mirel will decompose in landfills where air, moisture and bacteria are present. In aerobic conditions, Mirel degrades into water and carbon dioxide. Mirel will also rapidly decompose in a waste treatment facility and will degrade when flushed into household septic systems. It can be cleanly incinerated, and can also be degraded in industrial or backyard composting environments. Mirel will also biodegrade in aquatic environments, and so offers a solution to the hazard of persistent plastics in wetland, river, coastal, and ocean ecosystems. It is critical to note, however, that Mirel is functionally durable under typical cold, hot or wet conditions and only degrades in the environment subject to microbial action.

***Decreasing Carbon Dioxide Emissions***—We believe that the widespread use of our biobased plastics not only can decrease the use of fossil fuel but also can reduce the emission of carbon dioxide into the atmosphere. While the production of Mirel produces carbon dioxide, both the agricultural production of corn feedstock for microbial fermentation and the direct production of biobased plastics in plant crops such as switchgrass have the added benefit of removing carbon dioxide from the environment through photosynthesis. An independent life cycle assessment (LCA) for Mirel, conducted by Dr. Bruce Dale, professor of Chemical Engineering at Michigan State University, determined that production of Mirel reduces the use of nonrenewable energy by more than 95% and provides a 200% reduction in greenhouse gases compared to production of conventional petroleum-based plastics.

***Leveraging Agricultural Commodity Pricing Relative to Petrochemical Costs***—Our use of corn sugar as a feedstock to produce Mirel and our use of other plant crops to co-produce plastics will reduce the reliance on fossil fuel as the primary input source, thus significantly addressing the effects of the increasing cost of fossil fuel. We believe that polymers based on agricultural feedstocks, such as Mirel, may experience a more predictable cost structure and may become competitive to traditional

petroleum-based polymers over time. While Mirel will be produced using corn sugar, which has experienced rising prices due to increased ethanol demand, other sugars including cane or cellulosic sugar as well as vegetable oils can be used as feedstocks, which can enhance cost stability. The relative cost contribution of corn to Mirel is significantly less than that of the feedstocks for traditional petroleum-based polymers. Furthermore, even if pricing dynamics for corn and corn sugar change from past experience, we believe the volatility of oil prices will provide an incentive to diversify feedstocks.

**Reducing Dependency on Foreign Energy**—We believe the widespread use of our Mirel can help lower the United States' exposure to oil imported from politically unstable countries. In addition, we believe that the plastic-producing crops, which we intend to develop, offer the United States an additional opportunity in biofuels production, which currently is focused primarily on corn-based ethanol. We estimate that an annual crop of 160 million tons of plastic-producing switchgrass could produce fuel equivalent to one million barrels of oil per day, approximately 5% of current U.S. oil consumption, as well as 15 million tons of polymer per year.

### **History of Biobased Plastics and Formation of Metabolix**

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

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

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

Our company was formed in 1992 to exploit these discoveries. In order to fully capture the opportunity, we also acquired Monsanto's patent estate which relates to biobased plastics, which included the Biopol assets, in 2001. We have since fully developed an integrated manufacturing process using transgenic strains for fermentation and a proprietary recovery process. This integrated manufacturing process is being incorporated into the Mirel Commercial Manufacturing Facility. We have also developed proprietary plastic formulation technology, and we are also developing our platform technology for co-producing plastics, chemicals and energy in crops such as switchgrass, oilseeds and sugarcane.

## Business Strategy

Our goal is to be the leader in discovering, developing and commercializing economically attractive, environmentally sustainable alternatives to petroleum-based plastics, chemicals and energy. To achieve this goal, we are building a portfolio of programs that we believe will not only provide an attractive slate of commercial opportunities but will also generate leading and competitive intellectual property positions in the field. Key elements of our strategy include:

**Establishing Production of Mirel**—We have put into operation a pre-commercial manufacturing facility to produce Mirel to seed the market, and we have contracted with others to perform certain processing and compounding steps. During 2007 we expanded our pre-commercial production facility to a design capacity of 50,000 pounds per month in order to supply greater amounts of Mirel material for market development activities. As part of our strategic alliance, ADM is constructing a 110 million pound annual capacity Commercial Manufacturing Facility to produce Mirel. The ADM site in Clinton, Iowa is being built to accommodate significant expansion beyond its initial capacity.

**Market Positioning and Sales**—We have put in place a marketing and sales team to educate and develop our prospective customer base for Mirel. This team is focused on positioning Mirel as a premium priced, specialty material that is an environmentally attractive alternative to petroleum-based plastics. We are marketing our biobased plastic under the brand name Mirel consistent with this positioning and will seek to co-brand Mirel with our customers. The focus of this effort is to build a pipeline of customer projects across a range of applications. Our goal is to obtain substantial customer commitments prior to completion of the Commercial Manufacturing Facility.

**Continuing Microbial Research and Process Development**—We have identified opportunities to improve our production strains and our fermentation and recovery processes. We believe that significant reductions in the cost to manufacture Mirel can occur as we successfully exploit these opportunities. We also believe that as we acquire more experience with manufacturing our products at commercial scale, we will identify further improvements we can make.

**Developing Applications for Mirel**—We have developed formulations of our polymer suitable for injection molding, blown and cast film, sheet, extrusion coating, and thermoforming. These grades will be refined further to tailor them for specific customer performance requirements, and additional grades will be developed for other applications. In addition, we plan to develop new formulations and processing protocols to extend the applications into which we can sell our products. Specific areas of work may include extrusion coating, foam and fiber.

**Advancing Switchgrass Research and Other Plant Strains**—We believe that we are pioneering the technical process of introducing multigene traits into plant crops for the production of plastics directly in the plant. Our switchgrass platform is currently in the research phase. In order to achieve a commercially attractive system, we intend to further improve our plant strains to achieve high levels of PHA content by weight. We also intend to research introducing traits to increase crop yields in terms of tons per acre, and enhance biomass processability for the production of energy. We are also exploring additional crop varieties that offer attractive commercial opportunities. These include oilseed, which is suitable for northern climates and can co-produce PHAs along with biodiesel feedstock, and sugar cane, which is suitable for tropical climates and can co-produce PHAs along with ethanol feedstock.

**Partnering our Plastics in Plant Crops Programs**—As appropriate, we may seek to leverage our technology and establish strategic partnerships with one or more industry leading companies that can provide access to resources and infrastructure valuable for commercializing these platforms. These partnerships may take the form of large-scale strategic collaborations, or more limited collaborations with partners having complementary strengths, for example in biorefinery operations or marketing.

**Building Governmental Awareness of Our Approach**—Policy makers are seeking opportunities to reduce dependence on imported fossil fuel, decrease carbon dioxide emission, and address landfill and pollution issues. We intend to continue to build our governmental affairs initiatives, primarily in California, which is well known as a leader in environmental legislation. We believe that higher awareness of our solution may result in legislation that can facilitate and accelerate the adoption of our products.

**Extending Our Technology to Sustainable Production of Large Volume Chemicals and Intermediates** —We believe that our technical capabilities can be applied to produce important commercial chemicals and chemical intermediates through biological conversion of sustainable feedstocks such as sugars. Through our integrated bio-engineered chemicals program, we plan to conduct research into the development of sustainable solutions for widely used four-carbon industrial chemicals.

**Furthering our Leading and Competitive Intellectual Property Position**—We have built a patent estate around our platform technologies and a variety of inventions relevant to the commercialization of Mirel. We plan to extend this patent estate within our core business as well as to other commercial opportunities in the area of biobased plastics, chemicals and energy. Where appropriate, we may also license our intellectual property to others in fields outside our areas of interest. Some of the areas in which we may seek to establish leading and competitive intellectual property include:

- intermediates and chemicals produced by microbial fermentation;
- plant varieties to co-produce plastics and energy (e.g., ethanol and biodiesel); and
- plant strains that optimize crop yields and processing traits for conversion to energy.

## **Mirel**

Our first platform, which we will be commercializing through Telles, our joint venture with Archer Daniels Midland Company, or ADM, is a proprietary, large-scale microbial fermentation system for producing bioplastics. Our microbial fermentation system combines our proprietary engineered microbes with corn sugar and other materials in a fermenter. The microbes digest the corn sugar and produce the bioplastics (polyhydroxyalkanoates, or "PHAs") inside the microbes. We separate the bioplastics from the remainder of the microbes and formulate Mirel into its final form for commercial sale.

### **Alliance with Archer Daniels Midland Company**

On July 12, 2006, we entered into a commercial alliance with ADM Polymer Corporation, a wholly-owned subsidiary of ADM, one of the largest agricultural processors in the world. The commercial alliance has two phases, which are described below and include: (i) a Commercial Alliance Phase and (ii) a Joint Venture Phase.

**Commercial Alliance Phase**—The purpose of this phase is to build the Commercial Manufacturing Facility, to market and sell Mirel through a joint venture company owned equally by each of Metabolix and ADM Polymer, which we have named Telles, to make arrangements for the financing of the operation and to allocate distributions of cash flow.

On July 12, 2006, ADM exercised its option to enter into the Commercial Alliance. The Commercial Alliance Phase will last until the expiration of all patents relating to PHAs produced through fermentation (including patents licensed by us to Telles and patents claiming inventions made during the strategic alliance with ADM Polymer), unless we and ADM enter the Joint Venture Phase (as described below) or unless either party terminates the strategic alliance. During the Commercial Alliance Phase, ADM is responsible for and finances construction of the Commercial Manufacturing Facility, which it will own and contract on a dedicated basis to Telles. In addition, ADM will finance

the working capital requirements of Telles. We are responsible for compounding operations and investing in compounding equipment, and we will take responsibility for continuing research and development. In addition, we will lead the sales and marketing efforts on behalf of Telles until completion of the construction of the Commercial Manufacturing Facility. At that time, Telles will assume control of such activities. Telles will make up to twelve quarterly payments of approximately \$1.6 million to us to support these activities during the construction of the Commercial Manufacturing Facility. After the twelfth payment is received and until commercial sales of product from the Commercial Manufacturing Facility begin, we will bear all the costs of such sales and marketing activities. In the event construction is completed and sale of commercial product commences prior to Telles making all twelve such payments, the quarterly payments will cease, and the joint venture will pay us a lump sum equal to the number of remaining unpaid payments multiplied by \$250,000.

Upon the commencement of commercial sales, Telles will pay royalties to us for all Mirel sold by Telles. Telles will also pay manufacturing fees to ADM for production of Mirel and will pay compounding fees to us for certain compounding services. Telles will compensate ADM and us for services that we each may provide under separate service agreements. For example, we anticipate that we may provide research, development, marketing and sales services to Telles under such a service agreement.

ADM is constructing and financing, and will own and operate the Commercial Manufacturing Facility through a manufacturing agreement with Telles. Even though Telles is a separate legal entity owned equally by each of Metabolix and ADM Polymer, ADM Polymer will disproportionately fund the activities of Telles subject to certain limitations. In order to rebalance the respective investments made by the parties, a preferential distribution of cash flow will be used, whereby all profits, after payment of all royalties, reimbursements and fees, from Telles will be distributed to ADM until ADM's disproportionate investment in Telles, including the costs of constructing the Commercial Manufacturing Facility, have been returned to ADM. Once ADM has recouped such amounts, the profits of Telles will be distributed in equal amounts to the parties.

Our agreements with ADM limit ADM's and our right to work with other parties or alone, in developing or commercializing PHAs made through fermentation. These agreements do not, however, limit our right to develop, manufacture or sell biobased plastics, including PHAs, produced through plants such as switchgrass, sugarcane or oilseeds (rather than through fermentation) independent of the alliance.

These agreements also include detailed provisions setting out the rights and obligations of the parties in the event of a termination of the Commercial Alliance. These provisions include the right of the parties to terminate the Commercial Alliance upon a material default of a material obligation by the other party after a notice and cure period has expired. The parties are also permitted, under limited circumstances, to terminate the Commercial Alliance if a change in circumstances that is not reasonably within the control of a party makes the anticipated financial return from the project inadequate or too uncertain. ADM and we have agreed that the following are examples of a change in circumstances beyond the reasonable control of ADM:

- a third party challenge to the validity or enforceability of our technology or patent rights relating to our fermentation program;
- the emergence of a third party's superior technology;
- an increase in the projected cost required to construct the Commercial Manufacturing Facility or to manufacture Mirel; and
- a decrease in the projected sales volume of Mirel.

The agreement does not provide examples of a change in circumstances beyond our reasonable control. Finally, the parties have specific obligations to fulfill in the event of termination or if they file for bankruptcy protection. The obligations on termination are generally structured to permit the non-breaching party (in the event the strategic alliance is terminated due to a breach of the agreements) to continue to develop the business established by the alliance. For example, on such a termination due to a breach by us, ADM would be permitted to continue to produce and sell Mirel (generally in limited quantities and subject to a royalty to us) and we would be required to perform compounding services for ADM for a period of time following the termination. Similarly, on a termination due to a breach by ADM or termination by ADM due to a change in circumstances, we would be permitted to continue to produce, and sell, Mirel, and ADM would be required to perform fermentation services for us for a period of time following the termination (subject to certain payment obligations to ADM).

**Joint Venture Phase**—When market demand exceeds the capacity of the Commercial Manufacturing Facility and the initial license granted by us, ADM has the option to form a new entity with us in order to build additional capacity and expand the commercial operation beyond the limits of the initial production capacity. The new joint venture entity would be owned equally by Metabolix and ADM Polymer. Under certain circumstances, if ADM does not exercise its option, then Metabolix would have an opportunity to manufacture and sell Mirel independent of the Commercial Alliance.

#### **Target Markets for Mirel**

We believe Mirel possesses comparable functional properties to petroleum-based polymers serving applications that cover as much as half of the global polymer market. Our strategy is to enter this market with premium priced products that address specialized segments that can be served competitively by Mirel's distinctive properties. Telles will sell Mirel in pellet form (for further processing and re-sale as finished goods or components by customers) and may also sell Mirel in densified form, as a blend with other biodegradable materials, or in other forms as may be determined by Telles and its customers.

We are initially targeting three market segments: branded products, regulated markets and products requiring biodegradability as a key functional property.

**Branded Products**—The market for branded products and services with attributes of environmental responsibility and sustainability is an emerging business opportunity. We are branding our biobased plastic under the name Mirel, and we expect that by co-branding products that use Mirel, we and our customers will be able to jointly promote environmental sustainability.

We believe that producers are positioning products as environmentally responsible or superior to gain a competitive advantage as they believe consumer preferences are shifting. We believe the use of Mirel in branded products either directly or for packaging will facilitate and enhance our customers' efforts to exploit this trend.

**Regulated Markets**—Regulatory action, such as bans, taxes, subsidies, mandates and initiatives, to encourage substitution of renewable and sustainable materials for petroleum-based incumbents is increasing. Examples of this can be found in the following jurisdictions:

- Beginning in June 2008, China will ban shops from giving out free plastic bags.
- Taiwan, India and Tanzania have placed outright bans on plastic bags.
- Ireland, Kenya, Uganda, Switzerland and Belgium have placed taxes or tariffs on plastic bags.

- Germany has a 1.30 Euro/kg levy on plastic packaging that is non-biodegradable. In addition, Europe requires original equipment manufacturers to take back certain products at the end of life and manage their disposal.

In the geographic segments where regulatory drivers exist, Mirel can meet requirements for biobased content or biodegradability that favor Mirel over conventional petroleum-based plastics. In addition, producers are now anticipating regulatory change and are initiating programs to introduce sustainable materials into their products prior to or in an attempt to forestall implementation of such regulation. We believe that as awareness of our practical and affordable alternative grows, the pace of regulatory change may accelerate.

**Products Requiring Biodegradability**—There are a number of applications for which biodegradability will be a key functional property. These markets consist largely of agricultural, erosion control, and construction applications, where the employment of implements and materials that decay naturally after use can increase efficiency, simplify cleanup and reduce disposal cost. While there are biodegradable offerings on the market today, we do not believe that existing products provide both the robust performance in use combined with the degradation in a variety of conditions that Mirel offers. For example, some materials break down quite rapidly when exposed to water and would not be durable enough if used in agricultural applications. Other materials will only degrade in hot compost environments. Mirel, however, can be engineered to provide months of use in the environment and then be plowed under the soil or left on-site to decompose over time in normal soil conditions where microbes are present. Potential applications in this segment include:

- Mulch film
- Erosion control netting
- Single season irrigation devices
- Stakes
- Plant pots

### **Applications for Mirel**

To approach these market segments, we are conducting product and business development activities, including working with potential customers to determine their specific needs, and we have begun the process of qualifying our material for a variety of customer applications. We are actively developing customer prospects to qualify our products in the following application areas:

<b>Segment</b>	<b>Examples of Application</b>	
<b>Packaging</b>	<ul style="list-style-type: none"> <li>• Caps and closures</li> <li>• Compostable bags</li> </ul>	<ul style="list-style-type: none"> <li>• Stretch wrap</li> <li>• Foam</li> </ul>
<b>Consumer Products</b>	<ul style="list-style-type: none"> <li>• Cosmetics packaging</li> <li>• Personal hygiene products</li> </ul>	<ul style="list-style-type: none"> <li>• Gift and credit cards</li> </ul>
<b>Electronics</b>	<ul style="list-style-type: none"> <li>• Components</li> <li>• Trays</li> </ul>	<ul style="list-style-type: none"> <li>• Housing</li> </ul>
<b>Agriculture/Horticulture</b>	<ul style="list-style-type: none"> <li>• Agricultural film</li> <li>• Erosion control stakes</li> <li>• Netting</li> </ul>	<ul style="list-style-type: none"> <li>• Silage wrap</li> <li>• Degradable plant pots</li> </ul>
<b>Marine/Water</b>	<ul style="list-style-type: none"> <li>• Biodegradable water treatment devices</li> </ul>	



To serve these market opportunities, we have developed formulations of Mirel that can be processed in conventional plastics processing equipment for injection molding, blown and cast film, sheet, extrusion coating, and thermoforming. We also have plans to develop additional formulations to address the market segments above. We are presently working on a \$1.0 million contract awarded by the Strategic Environmental Research and Development Program of the U.S. Department of Defense to develop formulations suitable for packaging foam and stretch pallet wrap. We also have plans to explore formulations for producing blow molded bottles and fiber. To support these efforts, we have expanded our product development team. In some cases we may also enter into joint development arrangements with customers who have expertise in specific product applications.

### ***Marketing and Sales***

We are leading the marketing and sales effort on behalf of Telles. Sales of Mirel are highly technical in nature. Our expertise in polymer science combined with our familiarity with the properties of the Mirel family of bioplastics is essential to developing resin grades that meet specific customer requirements. In some cases, we may coordinate joint marketing and sales efforts with ADM, taking advantage of ADM's strong customer base. ADM is a world leader in agricultural processing and fermentation technology and is one of the world's largest processors of corn, soybeans, wheat and cocoa. ADM is also a leader in the production of ethanol and corn sweeteners.

It is our goal to establish customer relationships, that will lead to substantial purchase commitments for a portion of the Commercial Manufacturing Facility's initial output when production starts. To that end, we have built a pipeline of customer projects in different applications to maximize our opportunities to fill the plant to capacity.

We are currently focusing our efforts on applications in the areas of injection molding, cast and blown film, sheet, and thermoforming. We have provided material to customer prospects for initial testing. Some of our customer prospects have progressed to evaluation of additional volumes of Mirel in larger scale product qualification trials and test marketing, which in turn may lead to product adoption and sales. During 2007, Target test marketed gift cards made using Mirel in 129 of its stores and then introduced gift cards made using Mirel in all of its 1,600 stores in time for the 2007 holiday shopping season.

We are branding our biobased plastics under the name Mirel, and, where possible, we intend to co-brand the products that incorporate Mirel. Prospective buyers of Mirel are seeking not only the functional properties Mirel provides, but also the ability to promote their use of sustainable and renewable products. Co-branding enables our customers to convey environmental responsibility to their end consumers by referencing our brand with their product.

Mirel is being positioned as a specialty material that can serve both a functional need (which petroleum-based polymers may satisfy) and consumer preference for environmental responsibility (which petrochemical-based polymers cannot address). Consequently, we expect Telles to price Mirel as a specialty product at a premium to the prices of large volume commodity polymers but comparable to a number of specialty polymers. The business model for positioning products with an environmental benefit at higher price points is increasingly prevalent with examples in several different industries ranging from retail food stores to gasoline-electric hybrid automobiles.

On behalf of Telles, we intend to sell Mirel into markets around the globe, with an initial focus on North America, Europe and Japan. We intend to establish marketing and sales efforts either directly or through regional alliances with local firms in the Far East and Europe. We will also consider selected market development arrangements in certain discrete segments (fiber, for example) where there may be advantages to working closely with a market leader in that segment.

## Competition

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 players in this segment include Dow Chemical, DuPont, BASF, Bayer, 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, have taken steps toward plastics based on renewable resources, and are commercializing plastics that use building blocks derived from renewable resources as components. These products remain primarily fossil carbon based and are not biodegradable. Other producers of petroleum-based plastics, including BASF, Mitsubishi Chemical, and DuPont, now produce certain petrochemical grades that are biodegraded in industrial compost environments, but are otherwise persistent in the environment and are still subject to the volatility of oil and natural gas prices.

Our most comparable competitors are in the biodegradable, renewable resource based plastic segment, within which there are three distinct technologies: PHA, polylactic acid (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 offers the broadest range of properties and processing options, and will address the largest proportion of opportunities as an environmentally attractive yet functionally equivalent alternative to conventional petroleum-based plastics. Unlike PLA and most starch-based biodegradables, Mirel can:

- biodegrade in the natural environment, including the marine environment,
- biodegrade in cold and hot composts,
- remain functional in a wide range of temperature settings, and
- not deteriorate in everyday use.

Other companies active in the PHA plastics segment include Kaneka, Tainan, and minor producers in Brazil. The key players in PLA and starch based biodegradable plastics are NatureWorks, Mitsui Chemical, Toyota, Novamont and Stanelco.

Biodegradability	Fossil Carbon Based Plastics	Biomass Renewable Resource Based Plastics
<b>Biodegradable</b>	Synthetic Biodegradable Polyesters: -DuPont (Biomax™) -BASF (Ecoflex™) -Mitsubishi Chemical -Showa Denko (Bionolle™)	PHA: - <b>Metabolix (Mirel™)</b> -Kaneka (PHBH) -Tianan (PHBV)  PLA: - -Cargill/Teijin (NatureWorks™) - -Mitsui Chemical (Lacea™) - -Toyota  Starch-based Biodegradables: - -Novamont (MaterBi™) - -Stanelco (Starpol™)
<b>Non-Biodegradable</b>	Traditional petroleum-based products	-DuPont (Sorona™ (~30% biobased)) -Dow Chemical (Soybean Polyurethanes) -Arkema (Nylon 11) -Braskem (HDPE)

We believe that the principal advantages of our products will be the use of renewable feedstocks and biodegradability combined with their performance when compared to our alternative products. We believe our Mirel products compare well against other biodegradable plastics when judged on the following factors:

- *Biodegradability*—Mirel will biodegrade due to the action of microbial agents in a wide variety of circumstances, including both cold and hot compost (certain "biodegradable" plastics only degrade in hot compost), soil, anaerobic environments such as found in municipal waste treatment facilities and septic systems, and marine, wetland, and fresh water environments.
- *Property Range*—Mirel possesses a particularly broad range of functional properties, varying from stiff to flexible.
- *Processability*—Mirel can be processed in many types of existing polymer conversion equipment.
- *Upper Service Temperature*—Some formulations of Mirel will withstand temperatures in excess of 100° C, i.e., the boiling point of water, an important threshold.
- *Resistance to Hydrolysis*—While Mirel will biodegrade in marine, wetland, and fresh water environments, it is resistant to reacting with even hot water over durations encountered in many applications.
- *Carbon Footprint*—An independent life cycle assessment (LCA) for Mirel determined that production of Mirel reduces the use of nonrenewable energy by more than 95% and provides a 200% reduction in greenhouse gases compared to production of conventional petroleum-based plastics.

## Research Programs

We believe Mirel is the first of several attractive opportunities we will pursue to meet the world's plastic, chemical and energy needs through the biological conversion of renewable and sustainable agricultural feedstocks.

## ***Biomass Biorefinery Programs***

We are developing a breakthrough technology to produce plastics directly in plants. This effort builds on our success in creating high productivity microbial bio-factories and offers the potential to produce biobased plastics at comparable or lower costs than the current cost of producing commodity petroleum-based plastics such as polyethylene, polypropylene, and polystyrene. We believe we can engineer a system that co-produces plastics along with biomass for conversion to energy (such as steam, electricity, ethanol or biodiesel). This concept, called a "biomass biorefinery," is based on the co-production of energy and higher value biobased plastic. It is analogous to today's energy/petrochemical industry where synthetic plastics are derivative value-adding products to the production of energy from petroleum and natural gas. We believe the co-production of biobased plastics with energy in one system will offer superior economic value and productivity to a single product system. We received significant funding from the United States Government and BP for these efforts, and we have collaborations with the Donald Danforth Plant Science Center and the Australian Cooperative Research Centre to further our research in this area. Our goal is to reach field trial demonstrations within the next three to four years.

We believe we are a leader in the science and technology related to the transformation of several potentially important industrial biorefinery crops, including switchgrass. Precise insertion of novel pathways in plants is challenging due to the tendency of plants to eliminate foreign genes and due to the lengthy time required for cross-breeding of plant generations having new genes. We have developed several proprietary approaches to more efficiently introduce complex, multi-gene, multi-step pathways into switchgrass and we expect that these approaches will have value in other areas in addition to production of plastics.

We believe that our biomass biorefinery program offers the potential to improve the economics of producing not only biobased plastics, but also bioenergy. Polymer production economics can be improved because the manufacture of the material will take place within the plant. With our current fermentation process, starch, a precursor to our feedstock (i.e. corn sugar), is produced within the plant. Considerable costs are incurred extracting starch, converting it to corn sugar feedstock, and then converting that feedstock to Mirel. Through direct production in switchgrass, oilseeds or other crops, we can eliminate those conversion costs and potentially achieve production economics comparable to those of general agricultural products, which are inexpensive. It is also commonplace within both the agricultural and the energy industries to produce a variety of co-products from raw materials to maximize value. As with a barrel of oil that is converted to both gasoline and plastic, or a bushel of corn that is converted to sweetener and other products, we believe that a plant variety that co-produces both plastics and energy can have more value than one that does not.

While the cost of producing plastics in plant crops may be considerably lower than the cost of producing these materials by fermentation, we believe the introduction of plant based materials can significantly expand the market for fermentation based materials. The scale and complexity of agriculturally producing plastics will limit the grades of material produced to just a few. Conversely, fermentation based manufacturing allows many grades to be produced with a variety of property sets. Together, low cost plant based material can be blended with fermentation material to achieve an optimal balance between cost and performance.

### ***Switchgrass***

Our first program focuses on switchgrass, a commercially and ecologically attractive, non-food energy crop that is indigenous to North America. Switchgrass is an attractive biomass to energy crop that is generally considered to be a leading candidate for cellulose-derived production of ethanol and other biofuels. It is a high density perennial crop that can grow on marginal land and does not require substantial inputs in terms of water or fertilization. It has the capability of sequestering significant amounts of carbon dioxide from the atmosphere in its root systems.

We have already achieved several significant milestones in this program and can produce small amounts of plastics in switchgrass. Our research is currently focused on increasing plastic production levels to amounts we believe would be commercially viable.

### ***Sugarcane***

We are also developing sugarcane for co-production of biobased and biodegradable plastic within the leaves and stems of that plant. In 2007 we entered into a research collaboration with Australia's Cooperative Research Centre for Sugar Industry Innovation through Biotechnology (CRC SIIB) to develop sugarcane strains for the production of plastics. Sugarcane is currently the premier biomass crop for biofuels, and we believe it can be developed to produce an advanced biorefinery feedstock for the production of bioplastics, chemicals and energy, significantly expanding Metabolix's global reach. While switchgrass is well suited for the North American climate, sugarcane will be ideal for more tropical climate zones.

### ***Oilseeds***

Industrial oilseeds represent the third crop system to which Metabolix is applying its patented technology. We have initiated a program to develop an advanced industrial oilseed crop for co-production of bioplastics along with vegetable oil, which could be used for non-food applications such as biodiesel fuel or oleochemicals. Oilseeds are the primary feedstock for the more than 250 million gallons of biodiesel produced annually in the United States, and the co-production of bioplastics promises to improve the economics of this crop industry. Recently, we established a research collaboration with noted oilseed experts at the Donald Danforth Plant Science Center, a leading not-for-profit research institute in St. Louis, Missouri. The successful achievement of the technical goals of this program would result in stable expression of biobased plastics directly in oilseed crops. Metabolix plans to assemble a team of scientists in St. Louis to work closely with Danforth's principal investigators. The Danforth Center has extensive experience in oilseed technology. Combining their experience with our patented technologies could expedite the commercialization of multiple products in oilseed crops. This collaboration is supported financially by a two year, \$1.14 million grant from the Missouri Life Sciences Trust Fund to the Danforth Center.

### ***Integrated Bio-Engineered Chemicals Program***

During 2007, we received an Advanced Technology Program (ATP) award from the U.S. Department of Commerce's National Institute of Standards and Technology (NIST). The \$2 million award will be used to develop a commercially viable process for producing biobased chemicals from renewable agricultural products. The ATP program provides cost-shared funding to industry-led teams, including non-profits and universities, to help advance research and development projects that have the potential to spark important, broad-based economic or social benefits for the United States. Our award will fund our integrated bio-engineered chemicals (IBEC) program, which is beginning development of sustainable solutions for widely-used four-carbon industrial chemicals. The program is designed to create a class of biobased routes for producing important industrial chemical intermediates, reducing our dependence on fossil feedstocks and providing the nation with competitive advantages in polymers, chemicals and agriculture, all while reducing adverse environmental impacts.

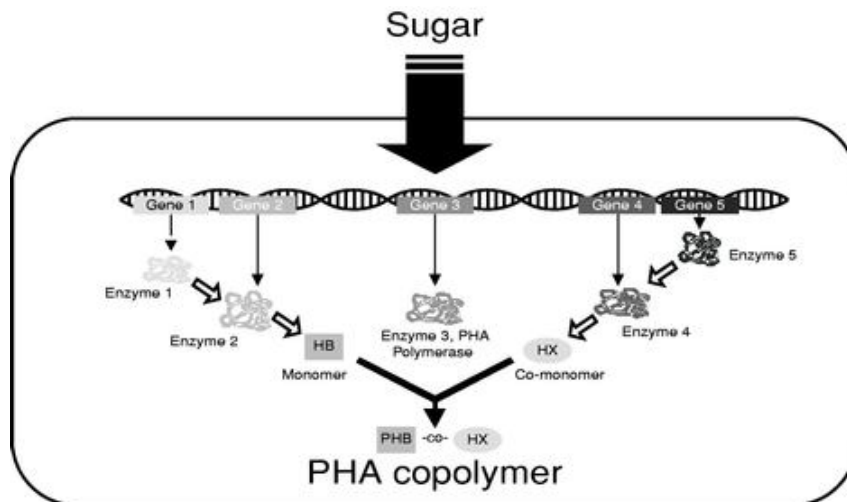
Our IBEC project will seek to bio-engineer microbes to produce polymers similar to Mirel through the fermentation of plant-derived sugars. The produced polyesters will then be converted into a variety of four-carbon (C4) industrial chemicals. Today, C4 chemicals are produced almost entirely from fossil-based hydrocarbons such as natural gas, oil or coal and are used in products such as auto parts, spandex, polyurethanes, engineering resins and solvents. Global demand for C4 industrial chemicals is estimated at 2.5 billion pounds annually, and growing at a rate of 4 to 5 percent a year.

## Our Technology and Product Development Process

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. We believe that our advanced capabilities will allow 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;
- incorporate that organism into a reliable, large scale industrial process; and
- tailor our end product from that process to suit our customers' needs.

**Biology and Genetic Engineering**—While most biotechnology products today involve identifying a single gene to produce one protein, we have identified and chromosomally inserted a series of genes to produce several proteins and have done so in such a way that they are expressed to execute the right reactions at the right times. We are not aware of other efforts in this field that have executed metabolic pathway engineering to this level of sophistication and with the level of success that we have achieved. The illustration below shows a schematic of our multi-gene system to produce Mirel.



We have also developed core competencies in plant transformation and the development of advanced multigene expression technologies for introducing multiple traits into biomass plant crops.

**Industrial Fermentation Process Engineering**—We have tightly integrated our fermentation scale-up research capabilities with our genetic engineering capabilities to create a feedback loop where data from fermentation experiments can readily influence microbial design and where microbial engineering approaches can guide the fermentation group to structure the optimal protocols (recipes) for running fermentations.

**Chemical Process Engineering**—The third element of our technology and product development process involves process chemistry and chemical engineering to separate the polymer from the biological cell material once fermentation is complete. We have a dedicated team that has developed a proprietary process for Mirel recovery at the industrial scale. We have invented a process that achieves a high level of purity without damaging the polymer and that we believe can be implemented cost effectively at commercial scale. We have successfully demonstrated our ability to efficiently isolate polymer from the cell debris, clean and dry the polymer and prepare it for processing into pellets.

**Polymer Science and Product Development**—The final elements of our product development involve tailoring the polymer to provide the product properties and meet the processing requirements for specific customer applications and then compounding that material for delivery to customers. Our product development team has considerable expertise in polymer science and to date has developed prototype formulations for injection molding, blown and cast film, sheet, extrusion coating, and thermoforming. We will continue to work with our customers to finalize our formulations to commercial specifications. In the future, we have plans to create formulations for blow molding, foam and fiber.

In sum, we have successfully integrated capabilities in biology, genetics, fermentation process engineering, chemical engineering and polymer science. We believe this integrated set of capabilities will be a source of competitive advantage. These same capabilities are being applied to our plant crop programs where we intend to develop an industrial system to co-produce bioplastics with cost advantaged biomass for bioenergy. We believe our capabilities can also be applied successfully to other biobased plastics, chemicals and energy projects.

## Research & Development

We have a long standing and ongoing research and development program that is designed to exploit our systems approach to industrial biotechnology. We believe that the technical challenges of successfully deploying biotechnology in industrial settings are high and that systems developed in an integrated and comprehensive environment will generate the optimum possible results and provide us with a competitive advantage. Furthermore, we believe fully developed, commercially viable processes will command higher values from potential partners than individual components or technologies.

The primary goals of our research and development program are to:

- lower the cost and improve the productivity of producing Mirel by microbial fermentation;
- expand the market applications into which Mirel can be sold;
- introduce a plant-based production system that can dramatically transform the markets for plastics and energy;
- develop new opportunities to produce plastics, chemicals and energy in either fermentation or plant based systems; and
- develop and acquire competitive intellectual property and know-how in biobased plastics, chemicals and energy that defines us as the leader in the field.

Our research and development efforts are presently focused in three critical areas:

**Microbial Fermentation**—We have ongoing strain development efforts to develop microbes that can produce higher yields of Mirel at lower cost than our current strains. We have identified specific projects that we believe will allow us to approach the maximum theoretical yield and productivity of these systems. In addition, we are engaged in strain development work to facilitate production of other specific Mirel compositions that will allow us to extend the range of market applications we can address. This work will be combined with our ongoing product development effort, which is broadening the range of formulations we can make with our lead polymer composition.

**Polymer Producing Plants**—We are developing a technology to produce plastics directly in plants, including switchgrass, sugarcane and oilseed. This effort builds on our success in creating high productivity microbial biofactories and may enable the production of biobased plastics with economics that are as favorable as, or more favorable than, general purpose commodity plastics such as polyethylene, polypropylene, and polystyrene. We have successfully achieved the milestone of polymer

production in switchgrass in small amounts and are now working to increase production levels to amounts that would be commercially viable.

**New Systems and Products**—We plan to further apply our platform technologies to other commercial opportunities in the area of biobased plastics, chemicals and energy.

As of December 31, 2007, we employed 49 personnel conducting research and development for our programs. Among our research staff, 21 hold Ph.D.s and 24 hold masters or bachelors degrees in their respective disciplines. Our 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.

## **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 390 issued patents and 120 patent applications world wide, and we have licensed from third parties approximately 70 issued patents and 10 patent applications world wide. These patents cover, among other things, the fundamental biotechnology needed to produce Mirel as well as compositions, processes and derived products. The licensed patents and patent applications include patents covering our core technology that are owned by Massachusetts Institute of Technology and exclusively licensed to us. Under the MIT licensing agreement, we currently pay annual license fees. In addition, under this licensing agreement, we are obligated to pay royalties on sublicensing revenue and sales of products, if any, covered by the licensed patents.

Our patents are directed to compositions of polymers, genes, vectors, expression systems in plants and microbes, devices, coatings, films, as well as methods of manufacture and use. The terms of such patents are set to expire at various times between 2009 and 2022.

We will continue to file and prosecute patent applications when and where appropriate to attempt to protect our rights in our proprietary technologies. It is possible that our current patents, or patents which we may later acquire, may be successfully challenged or invalidated in whole or in part. It is also possible that we may not obtain issued patents for our pending patent applications or other inventions we seek to protect. In that regard, we sometimes permit certain intellectual property to lapse or go abandoned under appropriate circumstances, and due to uncertainties inherent in prosecuting patent applications, sometimes patent applications are rejected and we subsequently abandon them. It is also possible that we may develop proprietary products or technologies in the future that are not patentable or that the patents of others will limit or altogether preclude our ability to do business. In addition, any patent issued to us may not provide us with any competitive advantages, in which event we may abandon such patent.

Our registered U.S. trademarks include *Metabolix*, *Biopol*, and *Where Nature Performs*. U.S. registration applications for our marks *Mirel*, *A Miracle of Nature*, *Telles*, *Bio-industrial Evolution*, the *Metabolix* logo and the *Mirel* logo are pending. Our marks *Metabolix*, *Mirel*, *Telles*, *Where Nature Performs* and certain other trademarks have been registered in selected foreign countries.

Our means of protecting our proprietary rights may not be adequate, and our competitors may independently develop technology that is similar to ours. Legal protections afford only limited protection for our technology. The laws of many countries do not protect our proprietary rights to as great an extent as do the laws of the United States. Despite our efforts to protect our proprietary rights, unauthorized parties have in the past attempted, and may in the future attempt, to copy aspects of our products or to obtain and use information that we regard as proprietary. Third parties may also design around our proprietary rights, which may render our protected products less valuable, if the



design-around is favorably received in the marketplace. In addition, if any of our products or the technology underlying our products is covered by third-party patents or other intellectual property rights, we could be subject to various legal actions. We cannot assure you that our products do not infringe patents held by others or that they will not in the future.

Litigation may be necessary to enforce our intellectual property rights, to protect our trade secrets, to determine the validity and scope of the proprietary rights of others, or to defend against claims of infringement or invalidity, misappropriation, or other claims. Any such litigation could result in substantial costs and diversion of our resources. Moreover, any settlement of or adverse judgment resulting from such litigation could require us to obtain a license to continue to use the technology that is the subject of the claim, or otherwise restrict or prohibit our use of the technology. Any required licenses may not be available to us on acceptable terms, if at all.

## **Employees**

As of December 31, 2007, we had 77 full-time employees. Of those employees, 49 are in research and development, 9 are in marketing, and 19 are in general and administration. Most of our employees are located in Massachusetts. None of our employees are subject to a collective bargaining agreement. We consider our relationships with our employees to be good.

## **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 soon as reasonably practicable after filing such material electronically or otherwise furnishing it to the Securities and Exchange Commission.

## **ITEM 1A. RISK FACTORS**

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

### ***Risks Relating to Our Business***

#### **We may not be able to successfully manufacture Mirel at commercial scale in a timely or economical manner.**

We are currently producing Mirel using our fermentation platform in relatively small quantities, at pre-commercial scale, for use in marketing activities, including conversion into end-products for test marketing by our customers. The current and anticipated methods for manufacturing biobased plastics, both by fermentation and in crops, and the anticipated methods for producing chemicals and energy, are highly complex processes in which a variety of difficulties may arise. We may not be able to resolve any such difficulties in a timely or cost effective fashion, if at all. We cannot be sure of the cost of producing Mirel at commercial scale by fermentation. We cannot assure you that we will be able to successfully manufacture Mirel at a commercial scale in a timely or economical manner.

Since construction of the commercial manufacturing facility for the production of Mirel (referred to as the Commercial Manufacturing Facility) is not yet complete, manufacturing costs at such facility are unknown and may ultimately be higher than we expect. While we believe that manufacturing costs will be reduced over time as we gain manufacturing know-how, we cannot be sure that we can manufacture Mirel in an economical manner. If we, in connection with our alliance with ADM, fail to commence production in a timely manner or to develop manufacturing capacity and experience, fail to continue to contract for manufacturing on acceptable terms, or fail to manufacture Mirel economically on a commercial scale or in commercial volumes, our commercialization of Mirel and our business, financial condition and results of operations will be materially adversely affected.

**We may not be successful in the development of commercial formulations of Mirel.**

Mirel can be produced in a large number of different formulations. Each formulation results in a material that has different performance attributes, such as flexibility, hardness or clarity. As such, different formulations will have utility in different commercial applications. Formulation development is a time-consuming and expensive activity. The development of new formulations requires significant and lengthy product development efforts, including planning, designing, developing and testing at the technological, product and manufacturing-process levels. These activities require us to make significant investments. Although there are many potential applications for Mirel, our resource constraints require us to focus on specific formulations and to forgo other opportunities. We expect that one or more of the potential formulations we choose to develop will not be technologically feasible or will not achieve commercial acceptance, and we cannot predict which, if any, of our formulations we will successfully develop or commercialize.

**We may not be successful in the development of plant crops for production of plastics.**

In addition to our development and scale-up work to produce Mirel through fermentation, we are also at an early stage developing the technology and processes to produce biobased plastics in plant crops, including switchgrass, sugar cane and oilseed. We are currently focused on the genetic and process engineering required in connection with such programs. Because we will be funding much, or perhaps all, of the development of such programs, there is a risk that we may not be able to continue to fund such programs to completion or to provide the support necessary to distribute, market and sell resulting products, if any, on a worldwide basis. These development programs will consume substantial resources.

To date our efforts to produce biobased plastics in crops has focused primarily on the genetic engineering required to cause the crops to aggregate plastic in the plant mass during the life cycle of the plant. We have not yet achieved a high enough concentration of plastic in commercial crops to make the current technology and process economically feasible at a commercial scale. If we are able to complete the genetic engineering work that leads to such aggregation at acceptable levels, we will also need to perform additional process engineering so that plastic can be recovered from the harvested crops, processed and formulated as required to constitute a marketable product. Such engineering work may not be successful and we may not have the financial resources to fund such work.

In connection with these efforts, we are acquiring know-how and developing technology internally that will be useful in efforts to engineer the crops so that upon completion of the harvest and recovery of biobased plastic, the residual material, or biomass, can be readily converted into energy through, for example, burning the biomass with coal or other conventional fuels or by converting the biomass into a liquid fuel such as ethanol. These development efforts are at a very early stage. The technological challenges associated with these programs are extraordinary and we may not be able to overcome these challenges. We will be required to invest a significant amount over a long period of time to complete such development work, if it can be completed at all.

We cannot predict the costs of producing biobased plastics in plant crops, given the stage of development of this program. The anticipated methods for manufacturing biobased plastics in crops, and for producing chemicals and energy, are highly complex processes in which a variety of difficulties may arise. Given this uncertainty, we may not be able to successfully produce biobased plastics in plant crops in an economical manner.

**If ADM does not successfully build the Commercial Manufacturing Facility on time and on budget, our revenues and the distribution of profits, if any, to us will be delayed.**

The cost of planning, designing, constructing and operating the Commercial Manufacturing Facility being developed to serve the alliance with ADM, and the cost of ancillary facilities and services related to the production of Mirel by Telles, will be very significant. ADM will be advancing a disproportionate share of the financial capital needed for such activities and, therefore, under our agreement all profits, after payment of all royalties, reimbursements and fees, from Telles will first be distributed to ADM until ADM's disproportionate investment in Telles has been returned. The timing of product availability from the Commercial Manufacturing Facility has been projected to be December 2008. However, much of the current construction work at Clinton has been impacted by this year's harsh Midwest winter, and ADM is in the process of re-evaluating construction timing for the Clinton project. If there are difficulties, delays or other unforeseen issues with the construction and start-up of the Commercial Manufacturing Facility, the cost of such activities will almost certainly increase, we may incur unreimbursed sales and marketing costs until commercial sales from the Commercial Manufacturing Facility begin, and the revenue from sales, if any, of Mirel and the distribution of profits, if any, to us will be delayed.

**We may not be able to develop manufacturing capacity sufficient to meet demand in an economical manner or at all.**

We cannot assure you that we will have the necessary funds to finance the development of the Commercial Manufacturing Facility or that ADM will pay its share of the costs incurred by Telles, or that we will be able to develop this manufacturing infrastructure in a timely or economical manner, or at all. ADM could experience financial or other setbacks unrelated to our collaboration that could, nevertheless, adversely affect us. Also, the expansion of a commercial-scale manufacturing facility is complex and expensive. If demand for Mirel increases beyond the scope of the Commercial Manufacturing Facility being built to serve Telles, we may incur significant expenses in the expansion and/or construction of manufacturing facilities and increases in personnel in order to increase manufacturing capacity.

**We may not achieve market acceptance of our products.**

We do not currently have customers for commercial quantities of Mirel. 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;
- ability to produce products 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 willingness and speed at which potential customers qualify Mirel for use in their products;
- pricing of our products compared to competitive products;
- the strategic reaction of companies that market competitive products;

- our reliance on third parties who support or control distribution channels; and
- general market conditions.

Our customer prospects are currently evaluating and performing tests on Mirel prior to making any large-scale purchase decisions. We may not be able to successfully demonstrate that our plastics have properties comparable or superior to those of environmentally sustainable competitors or similar to conventional petroleum-based plastics. There can be no assurance that products based on our technologies will be perceived as being comparable or superior to existing products or new products being developed by competing companies or that such products will otherwise be accepted by consumers. The market for our biobased plastics may not be willing to support premium prices to purchase environmentally sustainable plastics. If there is not broad market acceptance of our products, we may not generate significant revenues.

**We have limited marketing and sales experience and capabilities, which may make the commercialization of our products difficult.**

We currently have limited marketing and sales experience and capabilities and virtually no distribution experience or capabilities. We will, in some instances, rely significantly on sales, marketing and distribution arrangements with our collaborative partners and other third parties. For example, we will rely on ADM Polymer to participate in and execute important aspects of the distribution of Mirel manufactured by ADM and we may use the ADM client base for marketing purposes. Our future revenues will be materially dependent upon the success of the efforts of these third parties and our ability to augment our own resources by identifying and hiring new employees. If we are unable to develop or obtain access to sales and marketing expertise, sales of our products, if any, may be adversely affected.

**We rely heavily on ADM and may rely heavily on future collaborative partners.**

We entered into a strategic alliance with ADM to commercialize our first technology platform, and we may enter into strategic partnerships with other corporations:

- to provide capital, equipment and facilities,
- to provide expertise in performing certain manufacturing and logistical activities,
- to provide funding for research and development programs, product development programs and commercialization activities,
- to provide access to raw materials, and
- to support or provide sales and marketing services.

The arrangement with ADM is, and arrangements with future collaborative partners may be, critical to our success in manufacturing our products and selling such products profitably. ADM and, we anticipate, our other future collaborative partners, will be permitted by contract to terminate their agreements with us for no reason and on limited notice. We and ADM have the ability to terminate the Commercial Alliance Agreement with 30 days notice if, based upon a change in circumstances beyond the reasonable control of the other party, the projected financial return from the commercial alliance is deemed by the other party to be either too uncertain or inadequate. We and ADM also have the ability to terminate the Commercial Alliance Agreement with 90 days notice in the case of a breach by the other party. We cannot guarantee that any of these relationships will be entered into, or if entered into, will continue. Failure to make or maintain these arrangements or a delay or failure in a collaborative partner's performance under any such arrangements would have a materially adverse affect on our business and financial condition.

We cannot control our collaborative partners' performance or the resources they devote to our programs. We may not always agree with our partners nor will we have control of our partners' activities on behalf of any alliance. As a result of these disagreements, the performance of our programs may be adversely affected, programs may be delayed or terminated, or we may have to use funds, personnel, equipment, facilities and other resources that we have not budgeted to undertake certain activities on our own. Performance issues, program delay or termination or unbudgeted use of our resources may have a material adverse effect on our business and financial condition.

Disputes may arise between us and a collaborative partner, including possible disputes regarding the ownership of technology and other intellectual property developed during a collaboration or other issues arising out of the collaborative agreements. Such a dispute could delay the program on which we are working or could prevent us from obtaining the right to commercially exploit such developments. It could also result in expensive arbitration or litigation, which may not be resolved in our favor. Our collaborative partners could merge with or be acquired by another company or experience financial or other setbacks unrelated to our collaboration that could, nevertheless, adversely affect us.

**Our success will be influenced by the price of petroleum, the primary ingredient in conventional petroleum-based plastics, relative to corn sugar, the primary ingredient in Mirel.**

Our success will be influenced by the cost of Mirel relative to petroleum-based plastics. The cost of petroleum-based plastic is in part based on the price of petroleum. Mirel is primarily manufactured using corn sugar, an agricultural feedstock. ADM currently supplies all required agricultural feedstock as part of our strategic alliance. In past years, the prices of petroleum and corn have diverged dramatically. Recently, the price of corn has increased. If the price of corn or corn sugar were to dramatically increase or if the price of petroleum decreases, Mirel may be less competitive relative to petroleum-based plastics. While we expect to be able to command a premium price for our environmentally sustainable products, 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. In such instance, if corn prices remain stable or increase, we may be required to price our products at a level that causes us to operate at a loss.

**Our future profitability is uncertain, and we have a limited operating history on which you can base your evaluation of our business.**

We have had net operating losses since being founded in 1992. At December 31, 2007, our accumulated deficit was approximately \$94 million. Since 1992, we have been engaged solely in research and development and other pre-commercial and early-stage commercial activities. As a part of our strategic alliance, ADM Polymer is constructing the commercial scale Commercial Manufacturing Facility for Mirel. ADM is in the process of re-evaluating construction timing for this project, and we expect that it will require an additional period of time to ramp up production. Until such time, we will not have significant revenues from sales of Mirel. 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 product revenue will be dependent on the successful completion of the scale-up and commercialization of Mirel through our strategic alliance with ADM, and other future products through other partnerships or joint ventures, if any, with third parties and separately for our own account. In addition, if we are unable to develop, commercialize and further advance technologies relating to the production of biobased plastics in crops and other products, or if sales of Mirel or such other products are not significant, we could have significant losses in the future due to ongoing expenses to perform research and product development and our inability to obtain additional research and development funding in connection with such products.

In addition, the amount we spend will impact our ability to become profitable and this will depend, in part, on:

- the progress of our research and development programs for the production of biobased plastics in crops and for other products;
- the cost of building, operating and maintaining manufacturing and research facilities;
- the number of products that we attempt to develop;
- the time and expense required to prosecute, enforce and/or challenge patent and other intellectual property rights;
- how competing technological and market developments affect our proposed products; and
- the cost of obtaining licenses required to use technology owned by others for proprietary products and otherwise.

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. If we fail to achieve profitability or significant revenues, the market price of our common stock will likely decrease.

**We may need to secure additional funding and may be unable to raise additional capital on favorable terms or at all.**

We have consumed substantial amounts of capital since our inception in 1992 for our research and development activities. Although we believe our unrestricted cash, cash equivalents and short-term investments of approximately \$109 million as of December 31, 2007, plus anticipated payments from the strategic alliance with ADM of approximately \$1.6 million per calendar quarter through 2008, will be sufficient to fund our anticipated cash requirements for at least the next 24 months, we may require significant additional financing in the future to fund our operations. We cannot assure you that additional financing will be available on terms acceptable to us, or at all. Until we can generate significant continuing revenues, we expect to satisfy our future cash needs through the use of existing cash resources and through strategic collaborations, governmental research grants, and/or by licensing all or a portion of our programs or technology. We may also seek additional funds through private or public sales of our securities, or debt financings. If funds are not available, we may be required to delay, reduce the scope of, or eliminate one or more of our research or development programs or our commercialization efforts. Further, additional funding may significantly dilute existing stockholders.

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

We are highly dependent on Oliver Peoples, our Chief Scientific Officer and Johan van Walsem, our Vice President of Manufacturing, Development and Operations. Dr. Peoples and Mr. van Walsem possess unique information related to our research and manufacturing operations. Dr. Peoples is one of our founders and has led and directed all of our scientific research and development programs. Dr. Peoples has such particular knowledge in the research, development and intellectual property aspects in connection with our technology platforms, that in the case of the loss of his services we would be unable to readily find a suitable replacement with comparable knowledge and experience necessary to further our research and development programs. Mr. van Walsem directs our pre-commercial manufacturing operation and has been instrumental in developing manufacturing know-how sufficient to operate our pre-commercial scale manufacturing plant. Mr. van Walsem has also been directing the transfer of our technology to ADM for use in the Commercial Manufacturing Facility. The loss of Mr. van Walsem's services to us would be difficult to readily replace and may adversely impact the achievement of our objectives. Our success depends largely upon the continued

service of our management and scientific staff and our ability to attract, retain and motivate highly skilled technical, scientific, management, regulatory compliance and marketing and sales personnel. Because of the unique talents and experience of many of our scientific, engineering and technical staff, competition for our personnel is intense. The loss of key personnel or our inability to hire and retain personnel who have required expertise and skills could materially adversely affect our research and development efforts and our business.

**We may not be able to adequately protect our trade secrets and other proprietary information, which could limit our ability to compete.**

Because we operate in highly technical fields of biotechnology discovery and development, plant science and polymer science, we rely in part on trade secret protection in order to protect our proprietary technology and processes. However, trade secrets are difficult to protect. We enter into confidentiality and intellectual property assignment agreements with our employees, consultants, outside scientific collaborators, and other advisors. These agreements generally require that the other party keep confidential and not disclose to third parties all confidential information developed by the party or made known to the party by us during the course of the party's relationship with us. These agreements also generally provide that inventions conceived by the party in the course of rendering services to us will be our exclusive property. However, these agreements may not be honored and may not effectively assign intellectual property rights to us. Enforcing a claim that a party illegally obtained and is using our trade secrets is difficult, expensive and time consuming and the outcome is unpredictable. In addition, courts outside the United States may be less willing to protect trade secrets. The failure to obtain or maintain trade secret protection could adversely affect our competitive position.

**Intellectual property protection for our products is important and uncertain.**

Our commercial success will depend in part on our obtaining and maintaining patent, trade secret and trademark protection of our technologies in the United States and other jurisdictions, as well as successfully enforcing this intellectual property and defending this intellectual property against third-party challenges. We will only be able to protect our technologies from unauthorized use by third parties by keeping them as trade secrets or to the extent that valid and enforceable intellectual property protections, such as patents, cover them. In particular, we place considerable emphasis on obtaining patent protection for significant new technologies, products and processes in the United States and in foreign jurisdictions where we plan to use such technologies. Legal means may afford only limited protection and may not adequately protect our rights or permit us to gain or keep our competitive advantage. 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 of the U.S. patents.

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. For example:

- we or our licensors might not have been the first to make the inventions covered by each of our pending patent applications and issued patents;
- we or our licensors might not have been the first to file patent applications for these inventions;
- others may independently develop similar or alternative technologies not encompassed by our patents;
- our issued patents and issued patents of our licensors may not provide us with any competitive advantages, or may be challenged and invalidated by third parties; and
- we may not develop additional proprietary technologies that are patentable.

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. Any issued patents owned by or licensed to us now or in the future may be challenged, invalidated, or circumvented, and the rights under such patents may not provide us with competitive advantages. In addition, competitors may design around our technology or develop competing technologies. We could incur substantial costs to bring suits in which we may assert our patent rights against others or defend ourselves in suits brought against us. An unfavorable outcome of any such litigation could have a material adverse effect on our business and results of operations.

We also rely on trade secrets to protect our technology, especially where we believe patent protection is not appropriate or obtainable. However, trade secrets are difficult to protect. We vigorously pursue confidentiality agreements and contractual provisions with our collaborators, potential customers, employees, and consultants to protect our trade secrets and proprietary know-how. These agreements may be breached and we may not have adequate remedies for such breach. While we use reasonable efforts to protect our trade secrets, our employees, consultants, contractors or scientific and other advisors, our potential customers, or our strategic partners may unintentionally or willfully disclose our proprietary information to competitors. If we were to enforce a claim that a third party had illegally obtained and was using our trade secrets, our enforcement efforts would be expensive and time consuming, and the outcome would be unpredictable. In addition, courts outside the United States are sometimes unwilling to protect trade secrets. Moreover, if our competitors independently develop equivalent knowledge, methods and know-how, it will be more difficult for us to enforce our rights and our business could be harmed.

If we are not able to defend the patent or trade secret protection position of our technologies, then we will not be able to exclude competitors from developing or marketing competing technologies, and we may not generate enough revenues from product sales to justify the cost of development of our technologies and to achieve or maintain profitability.

We also rely on trademarks to establish a market identity for our products. We currently have four registered trademarks in the United States and seven pending trademark applications filed with the U.S. Patent and Trademark Office, in addition to registrations and pending application in foreign jurisdictions. We expect to file additional applications as new trademarks are selected for our products, but because of the costs of filing and prosecuting such applications, there will be many countries in which we will choose not to file applications. To maintain the value of our trademarks, we might have to file lawsuits against third parties to prevent them from using trademarks confusingly similar to or dilutive of our registered or unregistered trademarks. Also, we might not obtain registrations for our pending or future trademark applications, and might have to defend our registered trademark and pending trademark applications from challenge by third parties. Enforcing or defending our registered and unregistered trademarks might result in significant litigation costs and damages, including the inability to continue using certain trademarks. In the event that we are unable to continue using certain trademarks, we may be forced to rebrand our products, which could result in the loss of brand recognition, and could require us to devote resources to advertise and market brands.

**A substantial portion of the technology used in our business is owned by or subject to retained rights of third parties.**

We have, and expect to have in the future, research and development agreements with academic institutions that retain rights to the developed intellectual property. The academic institutions generally retain ownership rights over the technology for use in non-commercial academic and research fields, including in some cases the right to license the technology to third parties for use in those fields. It is difficult to monitor and enforce such noncommercial academic and research uses, and we cannot



predict whether the third party licensees would comply with the use restrictions of these licenses. We could incur substantial expenses to enforce our rights against such licensees. In addition, even though the rights that academic institutions obtain are generally limited to the noncommercial academic and research fields, they may obtain rights to commercially exploit developed intellectual property in limited instances. Furthermore, under research and development agreements with academic institutions, our rights to intellectual property developed thereunder are not always certain, but instead may be in the form of an option to obtain license rights to such intellectual property. If we fail to timely exercise our option rights and/or we are unable to negotiate a license agreement, the academic institution may offer a license to the developed intellectual property to third parties for commercial purposes. Any such commercial exploitation could adversely affect our competitive position and have a material adverse effect on our business.

The academic institutions also generally have the right to terminate our license in the event that we fail to make required payments or otherwise breach the applicable agreements.

Although no material licenses are due to expire in the near future, the expiration of patents licensed from third parties or the termination of those licenses could have a material adverse effect on our business.

Some of our patents may cover inventions that were conceived or first reduced to practice under, or in connection with, U.S. government contracts or other federal funding agreements. With respect to inventions conceived or first reduced to practice under such federal funding agreements, the U.S. government may retain a nonexclusive, non-transferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States the invention throughout the world. In addition, if we fail to comply with our reporting obligations or to adequately exploit the developed intellectual property under these federal funding agreements, the U.S. government may obtain additional rights to the developed intellectual property, including the right to take title to any patents filed by us or to permit others to commercially exploit the intellectual property itself. Furthermore, our ability to exclusively license or assign the intellectual property developed under these federal funding agreements to third parties may be limited or subject to the U.S. government's approval or oversight. These limitations could have a significant impact on the commercial value of the developed intellectual property.

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

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

**If we are unable to manage our growth effectively, our business could be adversely affected.**

While historically we have focused the majority of our efforts on research and development of processes to produce Mirel, we plan to grow by allocating additional resources to developing marketing and sales expertise, entering into additional collaborations with strategic partners, adding personnel with specific technological experience, and developing and commercializing additional products, such as biobased plastics in plant crops and biological production of other chemicals and chemical intermediates from renewable resources. Our ability to grow in this manner will require that we manage a diverse range of relationships and projects, expand our personnel resources and facilities, and broaden our geographic presence. Our inability to do any of these could prevent us from successfully implementing our growth strategy, and our business could be adversely affected.

We believe that sustained growth at a higher rate will place a strain on our management, as well as on our other human resources. To manage this growth, we must continue to attract and retain qualified management, professional, scientific, technical and operating personnel. If we are unable to grow at the required rate, we may be unable to staff and manage projects adequately. This may slow the development process, and result in the commercialization of fewer products or compromise the quality of our work.

**We may not be successful in identifying market needs for new technologies and developing new products to meet those needs.**

The success of our business model depends on our ability to correctly identify market opportunities for biologically produced plastics, chemicals and energy. We intend to identify new market needs, but we may not always have success in doing so, in part because customers may perceive risks in adopting new materials, like Mirel, for use with existing products and because the markets for new materials and other products are not well-developed.

The materials and manufacturing technologies we research and develop are new and are steadily changing and advancing. The products that are derived from these technologies may not be applicable or compatible with the demands in existing markets. Our existing products and technologies may become uncompetitive or obsolete if our competitors adapt more quickly than we do to new technologies and changes in customers' requirements. Furthermore, we may not be able to identify new opportunities as they arise for our products since future applications of any given product may not be readily determinable, and we cannot reasonably estimate the size of any markets that may develop. If we are not able to successfully develop new products, we may be unable to increase our product revenues.

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

Mirel is a new material produced from genetically-engineered microbes and genetically engineered corn used as a feedstock. In the future our products may be produced in genetically-engineered crops. Some countries have adopted regulations prohibiting or limiting the production of genetically-

engineered crops and the sale of products made using genetically engineered organisms. Such regulations could harm our business and impair our ability to produce biobased plastics 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.

The manufacture, use, sale and marketing of Mirel is subject to government regulations in the U.S and other countries, including requirements for government approval of food contact applications. The failure to comply with governmental regulations or to obtain government approval for our products could have a material adverse effect on our results of operations and financial condition. Governmental regulation or negative publicity could delay, reduce or eliminate market demand for our products which could have a material adverse effect on our results of operations and financial condition.

**We face and will face substantial competition in several different markets that may adversely affect our results of operations.**

The plastics, chemicals and energy that we have developed or plan to develop will compete with other technologically innovative products as well as conventional petroleum-based plastics, chemicals and energy. We face and will face substantial competition from a variety of companies in the biodegradable, renewable resource-based plastic segment, within which there are three distinct technologies: PHA, PLA and starch-based biodegradables. While some of our competitors' existing products that are produced from renewable feedstocks do not have the range of properties that Mirel offers, such products are, nonetheless, suitable for use in a range of products at a price which may be lower than our premium priced product offerings. Our competitors include, but are not limited to, Kaneka in the PHA plastic segment, NatureWorks, Mitsui Chemical, Toyota, Novamont, and Stanelco in PLA and starch-based biodegradables, as well as all of the producers of petroleum-based plastics.

Many of our competitors have longer operating histories, greater name recognition, larger customer bases and significantly greater financial, sales and marketing, manufacturing, distribution, technical and other resources than we do. These 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.

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

Our current and planned activities involve the use of a broad range of materials that are, or may be, considered hazardous under applicable laws and regulations. Accordingly, we and ADM are subject to a number of foreign, federal, state, and local laws and regulations relating to protection of the environment, the storage, use, disposal of, and exposure to, hazardous materials and wastes, and health and safety, including Food and Drug Administration regulations related to food contact materials. Compliance with these laws and regulations could be costly and could delay or even preclude commercialization of our products for certain applications. There can be no assurance that we will be able to obtain the regulatory approvals necessary to commercialize Mirel for any or all food contact applications in a timely manner or at an acceptable cost.

If we were to violate or become liable under environmental, health and safety laws, we could incur costs, fines and civil and criminal penalties, personal injury and third party property damage claims, or

could be required to incur substantial investigation or remediation costs. Moreover, a failure to comply with environmental laws could result in fines and the revocation of environmental permits, which could prevent us, or our strategic partners, from conducting business. Liability under environmental laws can be joint and several and without regard to fault. There can be no assurance that violations of environmental health and safety laws will not occur in the future as a result of the inability to obtain permits, human error, equipment failure or other causes. Environmental laws could become more stringent over time, imposing greater compliance costs and increasing risks and penalties associated with violations, which could harm our business. Accordingly, violations of present and future environmental laws could restrict our ability to expand facilities, pursue certain technologies, and could require us to acquire costly equipment, or to incur potentially significant costs to comply with environmental regulations.

Compliance with foreign, federal, state and local environmental laws and regulations represents a small part of our present budget. If we fail to comply with any such laws or regulations, however, a government entity may levy a fine on us or require us to take costly measures to ensure compliance. Any such fine or expenditure may adversely affect our business activities, financial condition, or results of operations. We cannot predict the extent to which future legislation and regulation could cause us to incur additional operating expenses, capital expenditures, or restrictions and delays in the development of our products and properties.

**Our manufacturing operations are currently conducted at a single location, which makes us susceptible to disasters.**

Our pre-commercial manufacturing recovery operations are currently conducted at a single location in Fort Mill, South Carolina. As part of our joint venture with ADM, ADM is constructing the Commercial Manufacturing Facility at a single location in Clinton, Iowa, where we will initially conduct all of our commercial manufacturing operations. Our headquarters and research and development operations are located at a single facility in Cambridge, Massachusetts, and our product development activities are located at a single facility in Lowell, Massachusetts. We take precautions to safeguard our facilities, including insurance, health and safety protocols, and off-site storage of critical research results and of computer data. However, a natural disaster, such as a fire, flood or earthquake, could cause substantial delays in our operations, damage or destroy our manufacturing equipment, inventory or development projects, and cause us to incur additional expenses. The insurance we maintain against fires, floods, earthquakes and other natural disasters may not be adequate to cover our losses in any particular case.

**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 and products sold by our licensees 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, we may go out of business.

**Our government grants may subject us to government audits, which could materially harm our business and results of operations.**

We may be subject to audits by the U.S. federal government as part of routine audits of our activities funded by our government grants. As part of an audit, these agencies may review our performance, cost structures and compliance with applicable laws, regulations and standards. If any of our costs are found to be allocated improperly, the costs may not be reimbursed and any costs already

reimbursed for such contract may have to be refunded. Accordingly, an audit could result in a material adjustment to our revenue and results of operations. Moreover, if an audit uncovers improper or illegal activities, we may be subject to civil and criminal penalties and administrative sanctions.

**We face risks associated with our international business.**

We expect to establish, and to expand over time, international commercial operations and activities. Such international business operations are subject to a variety of risks associated with conducting business internationally, including:

- changes in or interpretations of foreign regulations that may adversely affect our ability to sell our products, perform services or repatriate profits to the United States;
- the imposition of tariffs;
- fluctuations in foreign exchange rates;
- economic or political instability in foreign countries;
- imposition of limitations on or increase of withholding and other taxes on remittances and other payments by foreign subsidiaries or joint ventures;
- conducting business in places where business practices and customs are unfamiliar and unknown;
- the imposition of restrictive trade policies;
- the imposition of inconsistent laws or regulations;
- imposition of limitations on genetically-engineered crops and organisms and the production or sale of products made from such crops and organisms in foreign countries;
- the imposition or increase of investment requirements and other restrictions or requirements by foreign governments;
- uncertainties relating to foreign laws and legal proceedings;
- having to comply with a variety of U.S. laws, including the Foreign Corrupt Practices Act;
- having to comply with U.S. export control regulations and policies that restrict our ability to communicate with non-U.S. employees and supply foreign affiliates and customers; and
- having to comply with licensing requirements.

We do not know the impact that these regulatory, geopolitical, and other factors may have on our international business in the future.

**If we are unable to maintain appropriate internal controls we will not be able to comply with applicable regulatory requirements imposed on reporting companies.**

We have recently completed a formal evaluation, documentation and analysis of our internal controls. During the course of our evaluation, documentation and testing of our internal controls, we did not identify any material weaknesses in internal control. However, in the future, we and our independent registered public accountants will continue to evaluate our internal controls and may identify deficiencies, significant deficiencies or material weaknesses. Remedying any deficiencies, significant deficiencies or material weaknesses that we or our independent registered public accounting firm may identify may require us to incur significant costs and expend significant time and management resources. While we believe that we have successfully implemented internal controls, we cannot assure you that any of the measures we implement to remedy any such deficiencies will effectively mitigate or remedy such deficiencies or weaknesses. Investors could lose confidence in our financial reports, and our stock price may be adversely affected, if our internal control over financial reporting is found not to be effective by management or by an independent registered public accounting firm or if we make disclosure of existing or potential significant deficiencies or material weaknesses in those controls.

Our business operations are relatively small and, as a result, we have operated with very limited staffing of key accounting and administrative functions. Such limited staffing made it difficult for us to segregate certain accounting functions. As our business matures from solely research and development into commercial operations, we have added some, and we will need additional, accounting and finance staffing to support our expanding business operations and to comply with the additional reporting and regulatory requirements of being a public company. We plan on hiring additional personnel in our accounting and finance function in order to have sufficient staffing levels. Our development, implementation and maintenance of appropriate internal controls will depend materially on our successful hiring and retention of key senior accounting personnel with appropriate technical accounting expertise.

### ***Risks Relating to Owning Our Common Stock***

**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.**

Prior to November 10, 2006, there was no public market for our common stock. 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, including construction of the Commercial Manufacturing Facility, relative to investor expectations;
- changes in earnings estimates, investors' perceptions, recommendations by securities analysts or our failure to achieve analysts' earning estimates;
- quarterly variations in our or our competitors' results of operations;
- general market conditions and other factors unrelated to our operating performance or the operating performance of our competitors;
- future sales of our common stock;
- announcements by us, or our competitors, of acquisitions, new products, significant contracts, commercial relationships or capital commitments;
- commencement of, or involvement in, litigation;
- any major change in our board of directors or management;
- changes in governmental regulations or in the status of our regulatory approvals;
- announcements related to patents issued to us or our competitors and to litigation involving our intellectual property;
- a lack of, limited, or negative industry or security analyst coverage;
- developments in our industry and general economic conditions; and
- the other factors described elsewhere in these "Risk Factors."

As a result of these factors, our stockholders may not be able to resell their shares at, or above, their purchase price. In addition, the stock prices of many technology companies have experienced wide fluctuations that have often been unrelated to the operating performance of those companies. The valuations of many biotechnology companies without consistent product revenues and earnings are extraordinarily high based on conventional valuation standards, such as price to earnings and price to sales ratios. These trading prices and valuations may not be sustained. Any negative change in the

public's perception of the prospects of biotechnology companies could depress our stock price regardless of our results of operations. These factors may materially and adversely affect the market price of our common stock.

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

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

- failure to estimate or control contract costs;
- adverse judgments or settlements in legal disputes;
- expenses related to acquisitions, mergers or joint ventures;
- other one-time financial charges;
- fluctuations due to revenue recognition under strategic alliance agreements (See "Management's Discussion and Analysis of Financial Condition and Results of Operations");
- fluctuations due to the effects of inflation;
- failure to produce commercialized products or to find customers for these products; and
- that some of our programs are supported by government funding, which is unpredictable.

**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. These provisions include:

- limitations on the removal of directors;
- a classified board of directors so that not all members of our board are elected at one time;
- advance notice requirements for stockholder proposals and nominations;
- the inability of stockholders to act by written consent or to call special meetings;
- the ability of our board of directors to make, alter or repeal our by-laws;
- a supermajority stockholder vote requirement for amending certain provisions of our amended and restated certificate of incorporation and bylaws; and
- the ability of our board of directors to designate the terms of and issue new series of preferred stock without stockholder approval.

The affirmative vote of the holders of at least 75% of our shares of capital stock entitled to vote is necessary to amend or repeal the above provisions of our certificate of incorporation. In addition, absent approval of our board of directors, our by-laws may only be amended or repealed by the affirmative vote of the holders of at least 75% of our shares of capital stock entitled to vote.

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.

**We do not currently intend to pay dividends on our common stock and, consequently, our stockholders' ability to achieve a return on their investment will depend on appreciation in the price of our common stock.**

We have never declared or paid any cash dividends on our common stock and do not currently intend to do so for the foreseeable future. We currently intend to invest our future earnings, if any, to fund our growth. Therefore, our stockholders are not likely to receive any dividends on their common stock for the foreseeable future.

#### **ITEM 1B. UNRESOLVED STAFF COMMENTS**

Not applicable

#### **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 2014, with an option to renew for two additional five year periods. We also lease approximately 13,700 square feet of office and laboratory space in Lowell, Massachusetts, which serves as the headquarters of Telles, our joint venture with ADM. Our lease for this facility expires in 2012. We are presently considering alternatives to expand our office and product development facilities, which may include leasing additional space in the greater Boston area.

We have entered into an agreement with Nation Ford Chemical, or NFC, to act as a contract manufacturer and to operate a recovery facility for pre-commercial manufacturing in Fort Mill, South Carolina. We deliver raw materials to NFC for manufacturing and processing of Mirel, which is stored and then shipped at our instruction. The agreement extends until December 31, 2008, and thereafter until terminated by either party upon not less than three (3) months prior written notice. This plant is a model for the larger extraction assets to be employed at the Commercial Manufacturing Facility and the current processes, technology and systems will be replicated at a larger scale at the Commercial Manufacturing Facility.

#### **ITEM 3. LEGAL PROCEEDINGS**

From time to time, we may be subject to legal proceedings and claims in the ordinary course of business. We are not currently aware of any such proceedings or claims that we believe will have, individually or in the aggregate, a material adverse effect on the business, financial condition or the results of operations.

Procter & Gamble Company ("P&G") filed a nullity action on March 8, 2005 in Germany seeking to revoke the German equivalent of one of the Company's European patents. The patent in question is licensed by the Massachusetts Institute of Technology ("MIT") exclusively to the Company. On July 14, 2007, the German Federal Patents Court dismissed the suit in its entirety. The court decided in favor of



the Company in its defense of the patent, with the plaintiff bearing all costs of the proceeding. The patent upheld in the suit is the German counterpart of the European patent EP 0 482 077, which covers a method of producing some types of biopolymers. The enforcement of the action, including the reimbursement of costs, was stayed pending the outcome of a potential appeal by of P&G. No appeal has been made, and the time for appeals has expired.

#### ITEM 4. SUBMISSION FOR MATTERS TO A VOTE OF SECURITY HOLDERS

None

### PART II

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

##### Market Information

Our common stock has been traded on the NASDAQ Global Market under the symbol "MBLX" since November 10, 2006. Prior to that time, there was no established public trading market for our common stock. The following table sets forth, for the period indicated, the high and low sales prices for the common stock, as reported by the NASDAQ Global Market, for the periods indicated below:

	Common Stock Price			
	2007		2006*	
	High	Low	High	Low
First Quarter	\$ 20.00	\$ 15.25	\$ —	\$ —
Second Quarter	29.37	16.40	—	—
Third Quarter	27.94	19.76	—	—
Fourth Quarter	29.76	17.93	21.18	14.09

\* Our common stock began trading on November 10, 2006.

The close price of our common stock, as reported by the NASDAQ Global Market, was \$16.10 on February 29, 2008.

##### Stockholders

As of February 29, 2008, there were 22,626,664 shares of our common stock outstanding held by 150 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**

None.

## **Use of Proceeds from Registered Securities**

On November 15, 2006, we issued and sold all of the 6,800,000 shares of our common stock that we registered under a Registration Statement on Form S-1 (File No. 333-135760), which was declared effective by the SEC on November 9, 2006, in an initial public offering at an offering price of \$14.00 per share. On November 16, 2006, the underwriters exercised the option to purchase an additional 1,020,000 shares of common stock from us at the offering price of \$14.00 per share less underwriting discounts and commissions. Concurrent with this offering, Archer Daniels Midland Company ("ADM") purchased 535,714 shares at an initial offering price of \$14.00 per share. The offering of the common stock, including the exercise by the underwriters of their over-allotment option and the sale of the ADM shares, resulted in gross proceeds of \$117 million and net proceeds of approximately \$107 million to us after deducting underwriting discounts and commissions of approximately \$7.6 million and related offering costs of an estimated \$2.5 million. The book running manager for the offering was Piper Jaffray & Co., and Jeffries & Company, Thomas Weisel Partners LLC and Ardour Capital Investments, LLC acted as representatives of the underwriters. No payments were made to directors, officers or persons owning ten percent or more of our common stock or to their associates, or to our affiliates, other than payments in the ordinary course of business to officers for salaries and to non-employee directors as compensation for board or board committee service.

We have used a portion of, and intend to continue to use, the proceeds of our initial public offering for general corporate purposes, which includes research and development, capital expenditures and other sales and marketing expenses. The unused net proceeds from our initial public offering are invested in investment grade, short term, interest bearing securities. This use of proceeds is not materially different from the use of proceeds described in the final prospectuses for our initial public offering.

The amount and timing of our actual expenditures may vary significantly depending on numerous factors, such as the progress of our product development and commercialization efforts and the amount of cash used to fund our operations.

## **Issuer Purchases of Equity Securities**

During the quarter ended December 31, 2007, 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 condensed consolidated statement of operations data for the years ended December 31, 2007, 2006, and 2005 and balance sheet data as of December 31, 2007 and 2006 have been derived from our consolidated financial statements and related notes, which are included elsewhere in this report, and have been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as indicated in their report. The selected condensed consolidated statement of operations data for the years ended December 31, 2004 and 2003 and the balance sheet data as of December 31, 2005, 2004 and 2003 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,				
	2007	2006	2005	2004	2003
(In thousands, except share and per share data)					
<b>Statement of operations data:</b>					
Total Revenue	\$ 1,683	\$ 4,590 <sup>(3)</sup>	\$ 2,781	\$ 3,678	\$ 2,383
<b>Operating expenses</b>					
Research and development expenses, including costs of revenue	19,901	11,235	5,980	5,426	6,204
General and administrative expenses	15,598	10,879	3,825	3,252	2,692
<b>Total Operating expenses</b>	<b>35,499</b>	<b>22,114</b>	<b>9,805</b>	<b>8,678</b>	<b>8,896</b>
Loss from operations	(33,816)	(17,524)	(7,024)	(5,000)	(6,513)
Interest income and (expense) net	5,941 <sup>(4)</sup>	1,462 <sup>(4)</sup>	99	(55)	(128)
Loss on investment in related parties	—	—	(700) <sup>(1)</sup>	—	—
<b>Net loss<sup>(2)</sup></b>	<b>\$ (27,875)</b>	<b>\$ (16,062)</b>	<b>\$ (7,625)</b>	<b>\$ (5,055)</b>	<b>\$ (6,641)</b>
Net loss per share Basic and Diluted	\$ (1.27)	\$ (2.96)	\$ (2.56)	\$ (1.68)	\$ (3.33)
Number of shares used in per share calculations Basic and Diluted	21,997,397	5,432,586	2,975,116	3,009,137	1,991,106

(1) At December 31, 2005, we determined that the fair value of our preferred stock investment in Tephra, Inc. was impaired and recorded an asset impairment charge to our entire investment in Tephra, Inc.

(2) Due to the adoption of SFAS 123R on January 1, 2006 the Company changed the manner in which it accounts for share-based compensation.

(3) In fiscal year 2006, we recognized \$2,500 of deferred revenue associated with the termination of our joint development arrangement with BP.

- (4) The increase was due to an increase in the cash and short-term investments held during the full year 2007 as compared with 2006. The increase in cash and short-term investments was primarily a result of the completion of our initial public offering in November 2006.

	As of December 31,				
	2007	2006	2005	2004	2003
	(In thousands)				
<b>Balance Sheet Information:</b>					
Cash and short-term investments	\$ 109,326	\$ 122,080	\$ 3,174	\$ 4,455	\$ 1,495
Total Assets	119,004	127,596	7,325	7,510	3,331
Long-term obligations	963	1,120	1,280	1,440	266
Long-term deferred revenue	24,180	13,667	5,621	3,000	—
Total Liabilities	29,802	18,008	9,874	7,246	4,546
Redeemable stock convertible preferred stock	—	—	44,009	39,235	32,640
Accumulated deficit	(94,112)	(66,237)	(50,175)	(42,549)	(37,495)
Total stockholders' equity (deficit)	89,202	109,588	(46,558)	(38,971)	(33,855)

## 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

We are a bioscience company that develops and plans to commercialize environmentally sustainable, economically attractive alternatives to petroleum-based plastics, chemicals and energy. Our strategy is to develop technology platforms that integrate advanced biotechnology with current industrial practice and to commercialize these platforms with industry leading strategic partners.

Our first platform, which we are commercializing through Telles, a joint venture with Archer Daniels Midland Company, or ADM, is a proprietary, large-scale microbial fermentation system for producing a versatile family of polymers known as polyhydroxyalkanoates, which we have branded under the name Mirel™. Through Telles, we intend to sell these bioplastics as environmentally friendly, but functionally equivalent, alternatives to petroleum-based plastics in a wide range of commercial applications, including packaging, consumer goods, consumer electronics, products used in agriculture and horticulture, and marine and water applications. Mirel will be produced in a 110 million pound annual capacity commercial scale plant, or Commercial Manufacturing Facility, which is presently under construction by ADM in Clinton, Iowa. The timing of product availability from the Commercial Manufacturing Facility has been projected to be December 2008. However, much of the current construction work at Clinton has been impacted by this year's harsh Midwest winter, and ADM is in the process of re-evaluating construction timing for the Clinton project. The Commercial Manufacturing Facility will produce biobased, sustainable and biodegradable Mirel plastic out of corn sugar, an abundant agriculturally-produced renewable resource. We are currently producing pre-commercial quantities of Mirel jointly with ADM at a small scale pre-commercial manufacturing facility.

Our second technology platform, which is in an early stage, is a biomass biorefinery system using plant crops to co-produce both bioplastics and bioenergy. For this system, we intend to extract polymer from the engineered plant crop, so that the remaining plant material can be used as a biomass feedstock for the production of bioenergy products including electricity and biofuel. We are engineering switchgrass to produce bioplastics in the leaf and stem of the plant. We also have a collaboration with the Australian Cooperative Research Centre to do the same in sugarcane, and we have recently established a strategic research collaboration with the Donald Danforth Plant Science Center to develop an advanced industrial oilseed crop for co-production of bioplastics along with vegetable oil, biodiesel fuel, or oleochemicals. Switchgrass is a commercially and ecologically attractive, non-food energy crop that is indigenous to North America and is generally considered to be a leading candidate for cellulose-derived production of ethanol and other biofuels. Sugarcane is an established energy crop that is well suited for tropical regions of the world. We believe that using these crops to co-produce bioplastics with bioenergy products can offer superior economic value and productivity as compared to single product systems that produce them individually. We have been working on our biomass biorefinery platform using switchgrass for several years, and we believe that we are a scientific leader in this field. Our goals for this program are to have commercially viable plant varieties in pre-commercial field trials in three to four years. We may also seek to establish alliances with partners to commercially exploit this platform.

As demonstrated by our first two technology platforms, we take an integrated systems approach to our technology development. We are focused on developing entire production systems from gene to end product as opposed to developing specific technologies (for example, gene sequencing, shuffling or directed evolution) or singular aspects of a product's production (for example, providing a key enzyme,

catalyst or ingredient). We believe this systems approach optimizes manufacturing productivity and, when commercialized, will enable us to capture more economic value from any platform that we pursue. We have core capabilities in microbial genetics, fermentation process engineering, chemical engineering, polymer science, plant genetics and botanical science. We have assembled these capabilities in a way that has allowed us to integrate biotechnology with chemical engineering and industrial practice. We believe that our approach can be applied to chemicals and other products to help establish and grow environmentally sustainable plastics, chemicals and energy industries.

We intend to apply our core capabilities in microbial engineering and plant transformation to develop biological routes to other chemicals and chemical intermediates. In September 2007 the U.S. Department of Commerce's National Institute of Standards and Technology approved a \$2 million award for us to develop a commercially viable process for producing biobased chemicals from renewable agricultural products. This award will fund our integrated bio-engineered chemicals program, which is beginning development of sustainable solutions for widely used four-carbon industrial chemicals.

To exploit our first technology platform, we are working with ADM to build the Commercial Manufacturing Facility in Clinton, Iowa. The bioplastics that this facility will produce are highly versatile and range in properties from hard and strong to soft and flexible. These properties allow for a wide variety of commercial applications, offering an environmentally-friendly alternative to petroleum-derived synthetic materials which are not biodegradable. Through Telles we intend to initially position Mirel as a premium priced specialty material catering to customers who want to match the functionality of petroleum-based plastic, but add the dimension of environmental responsibility to their products and brands.

With ADM we have initiated product and business development activities including production of pre-commercial amounts of Mirel, working with potential customers, and initiation of qualification trials of our material for selected customer applications. We expect that our products will initially be sold to companies that are:

- establishing themselves as leaders of the emerging market trend toward environmentally responsible products and services;
- addressing current or anticipated regulatory pressure to shift to more sustainable industry; and/or
- selling products where biodegradability is a key functional requirement.

We have a current pipeline of prospective customers that reflect each of these traits.

Since our inception in 1992, we have focused on the research of our platform technologies, the acquisition of patents to enhance these platforms, product development, and pre-commercial manufacturing of Mirel. Commercialization of Mirel will require significant additional expenditures in several areas, including research and development, pre-commercial manufacturing, product development, and sales and marketing organization development. We expect these expenditures to increase in future years.

We have generated revenues primarily from government grants, research and development payments, license fees, and royalty payments. We have funded our operations primarily through the sale of equity securities, government grants, and payments from our collaborative partners.

We have incurred significant losses since our inception. As of December 31, 2007, our accumulated deficit from inception to date was \$94,112 and total stockholders' equity was \$89,202. We recognized net losses of \$27,875, \$16,062, and \$7,625 in 2007, 2006, and 2005, respectively. We expect our net losses to increase in the next two years as we continue our pre-commercial manufacturing development and expand our research and development and sales and marketing activities.

## Collaborative Arrangements

Our strategy for collaborative arrangements is 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, these agreements are complex and have multiple elements that cover a variety of present and future activities. In addition, certain elements of these agreements are intrinsically difficult to separate and treat as separate units for accounting purposes. Consequently, we expect to defer recognizing most, if not all, of the payments we receive from partners as revenue until future years.

In 2004, we entered into the Technology Alliance and Option Agreement with ADM Polymer Corporation, or ADM Polymer, a subsidiary of ADM. The goal of the Technology Alliance and Option Agreement was to demonstrate the capabilities of our fermentation and recovery technologies at commercial scale and to prepare a master plan and budget for the construction of a commercial facility with a 110 million pound annual capacity. Upon achievement of such goals, ADM Polymer had the option to enter into a commercial alliance, by execution of the Commercial Alliance Agreement, for further research, development, manufacture, use, and sale of Mirel. In July 2006, ADM Polymer exercised its option under our Technology Alliance and Option Agreement and entered into a Commercial Alliance Agreement with us. Upon entering into the Commercial Alliance Agreement, the Technology Alliance and Option Agreement terminated pursuant to its terms. The Commercial Alliance Agreement calls for up to 12 quarterly payments of \$1,575, to us from ADM during the construction period of the Commercial Manufacturing Facility, along with reimbursements for pre-commercial manufacturing facility expansion and material production expenses. As of December 31, 2007, all payments received from ADM have been recorded as deferred revenue on our balance sheet. We expect to begin recognizing revenue at the time of the First Commercial Sale of Mirel (as defined in the Commercial Alliance Agreement) and all amounts will be recognized proportionally over the period in which our commercial obligations are fulfilled in accordance with the terms of the Commercial Alliance Agreement.

We formed a joint development agreement with BP in 2005. Deferred revenue of \$2,500 associated with the BP arrangement was recognized in full during the first quarter of 2006 when the alliance was terminated.

We received the following payments from these arrangements to offset operating cash needs:

- upfront payment of \$3,000 from ADM in November 2004;
- milestone payment of \$2,000 from ADM in May 2006;
- support payments of \$12,600 from ADM during 2006 and 2007;
- cumulative cost sharing payments from ADM for pre-commercial manufacturing plant construction and operations of \$5,486.
- upfront payment of \$1,000 and three subsequent quarterly payments of \$500 each, totaling \$2,500 in payments from BP during 2005 and 2006.

During the Commercial Alliance Phase, ADM will construct, finance, own and operate the Commercial Manufacturing Facility through a manufacturing agreement with Telles and we will provide or procure compounding services to convert the output from the Commercial Manufacturing Facility into forms that are suitable for various commercial applications.

Telles is a limited liability company, formed and equally owned by us and ADM, and is intended to: (i) serve as the commercial entity to establish and develop the commercial market for Mirel, and conduct the marketing and sales in accordance with the goals of the commercial alliance, (ii) assist in the coordination and integration of the manufacturing, compounding and marketing activities, and (iii) administer and account for financial matters on behalf of the parties. The Company and ADM each have 50% equity and voting interest in Telles.

Even though Telles is a separate legal entity owned equally by us and ADM Polymer, ADM Polymer will disproportionately fund the activities of the joint venture. Specifically, the cost of the Commercial Manufacturing Facility, the working capital requirements of the joint venture and the support payments to us will exceed the investments made by us to establish compounding operations for the joint venture. In order to rebalance the respective investments made by the parties, a preferential distribution of cash flow will be used, whereby all profits, after payment of all royalties, reimbursements and fees, from the joint venture, will be distributed to ADM until ADM's disproportionate investment in the joint venture, and the costs of constructing the Commercial Manufacturing Facility, have been returned to ADM. Once ADM has recouped such amounts, the profits of the joint venture will be distributed in equal amounts to the parties. In order to track the disproportionate investments ADM has made, a Ledger Account has been established to record the respective investments made by the parties. As of December 31, 2007 the balance of the ADM Ledger Account was \$97,269 and this balance is expected to increase as the construction of the Commercial Manufacturing Facility progresses and Telles becomes operational.

### United States Government Contracts and Grants

As of December 31, 2007, expected gross proceeds of \$2,692 remain to be received under our various government contracts and grants, which include amounts for reimbursement to our subcontractors, as well as reimbursement for our employees' time and benefits and other expenses related to performance under the various contracts.

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

Program Title	Funding Agency	Total government funds	Total received through December 31, 2007	Remaining amount available under various government contracts as of December 31, 2007	Contract/Grant Expiration
PHA Bioplastic Packaging Materials	SERDP <sup>(1)(2)</sup>	\$ 1,005	\$ 381	\$ 624	Aug. 2008
Blow Molded Bioproducts from Natural Plastic	Department of Agriculture	\$ 80	\$ 12	\$ 68	Dec. 2007
Integrated Bio-Engineered Chemicals	Department of Commerce	\$ 2,000	\$ —	\$ 2,000	Sept. 2009
Total		\$ 3,085	\$ 393	\$ 2,692	

(1) Funding of this government grant beyond the United States government's current fiscal year is subject to annual congressional appropriations.

(2) Strategic Environmental Research and Development Program.

### 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 3 to our consolidated financial statements, the following accounting policies involve a greater degree of judgment and complexity. Accordingly, we believe that the following accounting policies are the most critical to aid in fully understanding and evaluating our consolidated financial condition and results of operations.

### **Revenue Recognition**

We recognize revenue under government research grants when the related expense is incurred and we have obtained governmental approval to use the grant funds for agreed upon budgeted expenses.

For revenue received under our arrangements with ADM and BP, we recognize revenue in accordance with the Staff Accounting Bulletin ("SAB") 104, *Revenue Recognition*, and Emerging Issues Task Force ("EITF") Issue No. 00-21, *Revenue Arrangements with Multiple Deliverables*.

Our arrangement with ADM contains multiple elements including obligations for us to provide future compounding services, sales and marketing services, and certain research and development activities, amongst others. We have determined that these elements cannot be separated and accounted for individually as separate units of accounting. Therefore payments received from ADM have been classified as deferred revenue at the respective balance sheet dates and will begin to be recognized at the time of the first commercial sale of Mirel. All amounts will be recognized proportionally over the period in which our commercial obligations are fulfilled in accordance with the term of the Commercial Alliance Agreement.

Under our joint development arrangement with BP, we received \$2,000 in 2005 and \$500 in 2006. Due to these amounts being applicable to future elements of the arrangement, the amounts received during 2005 were recorded as deferred revenue at December 31, 2005. We recognized the revenue for these amounts during the first quarter of 2006 upon the termination notice from BP in January 2006, as we were released from any future obligations under this agreement.

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

### **Stock-Based Compensation**

Effective January 1, 2006, we adopted *Statement of Financial Accounting Standards ("SFAS") No. 123-revised, Share-Based Payment ("SFAS 123(R))*, which revises SFAS No. 123, *Accounting for Stock-Based Compensation ("SFAS 123")* and supersedes Accounting Principles Board ("APB") Opinion No. 25, *Accounting for Stock Issued to Employees ("APB 25")*. SFAS 123(R) requires that all employee-related stock-based compensation be recognized as an expense in the consolidated financial statements and that such expense be measured at the fair value of the award.

We adopted SFAS 123(R) using the prospective method of application due to our prior use of the minimum value method to value options. The prospective method requires us to recognize compensation expense on a prospective basis; therefore, prior period consolidated financial statements have not been restated. Compensation expense recognized includes the expense of stock options granted on and subsequent to January 1, 2006. Stock options granted by us prior to that time are specifically excluded from SFAS 123(R) and will continue to be accounted for in accordance with APB 25.

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. In 2006, we began using the Black-Scholes

option-pricing model to value our option grants and determine the related compensation expense. The assumptions used in calculating the fair value of stock-based awards represent management's best estimates, but the estimates involve inherent uncertainties and the application of management judgment. As a result, if factors change, and we use different assumptions, our stock-based compensation expense could be materially different in the future. Prior to the adoption of SFAS 123(R), we had adopted SFAS 123, but in accordance with SFAS 123, we had elected not to apply fair value-based accounting for awards under our stock incentive plan through December 31, 2005. Instead, we measured compensation expense for our stock plans using the intrinsic value method prescribed by APB 25, and related interpretations and provided pro forma disclosures as permitted under SFAS No. 148, *Accounting for Stock-Based Compensation—Transition and Disclosure an amendment of SFAS 123*. 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.

We account for stock compensation arrangements with non-employees in accordance with EITF No. 96-18, *Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling, Goods or Services*, using a fair value approach. For stock options granted to non-employees, the fair value of the stock options is estimated using the Black-Scholes valuation model. Stock-based compensation expense is recognized over the period of expected service by the non-employee. As the service is performed, we are required to update these assumptions and periodically revalue unvested options and make adjustments to the stock-based compensation expense using the new valuation. These adjustments may result in additional or lesser stock-based compensation expense than originally estimated or recorded, with a corresponding increase or decrease in compensation expense in the statement of operations. Ultimately, the final compensation charge for each option grant to non-employees is unknown until those options have vested or services have been completed or the performance of services is completed.

## Results of Operations

### Comparison of the Years Ended December 31, 2007 and 2006

#### Revenue

	Year ended December 31,		
	2007	2006	Change
Research and development revenue	\$ 147	\$ 2,505	\$ (2,358)
License fee revenue	500	—	500
License fee and royalty revenue from related parties	157	257	(100)
Grant revenue	879	1,828	(949)
<b>Total revenue</b>	<b>\$ 1,683</b>	<b>\$ 4,590</b>	<b>\$ (2,907)</b>

Total revenues were \$1,683 for the year ended December 31, 2007 as compared to \$4,590 for the year ended December 31, 2006. The primary reason for the decrease in research and development revenue in 2007 was the recognition of \$2,500 of deferred revenue, in fiscal year 2006, associated with the termination of the Company's joint development arrangement with BP. During 2007 the Company received \$500 in license fee revenue from entering a new licensing agreement in the fourth quarter of 2007. The decrease in license fee and royalty revenue from related parties was due to the receipt of the final license payment due from one of our license agreements with a related party during the first half of 2006. The decrease in grant revenue was attributable to the completion of a US Department of Agriculture program in the first quarter of 2006 and the completion of the Department of Energy program in the second quarter of 2007.

We expect revenues from government grants to fluctuate due to the availability of funding from the government, and the revenue from collaborative arrangements will be recognized as future obligations under the agreements are completed.

## Expense

	Year ended December 31,		Change
	2007	2006	
Research and development expenses, including cost of revenue	\$ 19,901	\$ 11,235	\$ 8,666
Selling, general, and administrative expenses	15,598	10,879	4,719
<b>Total operating expenses</b>	<b>\$ 35,499</b>	<b>\$ 22,114</b>	<b>\$ 13,385</b>

### *Research and Development Expenses*

Research and development expenses were \$19,901 and \$11,235 for the years ended December 31, 2007 and 2006, respectively. The increase of \$8,666 was primarily due to the expansion of product development activities associated with developing new product grades and formulations for prospective customers, increased pre-commercial manufacturing of Mirel to support market development activities, and increases in research and development personnel for polymer science and engineering to support our collaborative agreement with ADM. Employee payroll and benefits related expenses for the year ended December 31, 2007 were \$6,451 as compared to \$3,831 during the same period in 2006. Stock-based compensation expense increased to \$749 for the year ended December 31, 2007 as compared to \$166 during the same period in 2006. The expenses related to pre-commercial manufacturing increased to \$6,599 during the year ended December 31, 2007 as compared to \$3,522 during the same period in 2006.

We expect to incur increasing research and development expenses in future periods for pre-commercial manufacturing and product development activities as we continue to develop, test and refine products to meet the product specification requirements of our customers. We expect that our personnel related costs will also increase to support our microbial and plant research programs.

### *Selling General and Administrative Expenses*

Selling, general, and administrative expenses were \$15,598 and \$10,879 for the years ended December 31, 2007 and 2006, respectively. The increase of \$4,719 was primarily due to increased costs associated with being a public company and an increase in sales and marketing costs as we build our sales and marketing infrastructure for the commercialization of Mirel. Employee payroll and benefits related expenses increased to \$4,869 during the year ended December 31, 2007 as compared to \$3,306 for the same period in 2006. Stock-based compensation expense increased to \$3,810 during the year ended December 31, 2007 as compared to \$3,339 for the same period in 2006. Professional fees and consulting related fees increased to \$3,835 during the year ended December 31, 2007 as compared to \$2,703 for the same period in 2006. These increases were primarily attributable to accounting services relating to compliance with additional regulatory requirements of being a public company. Expenses related to facilities increased to \$1,038 during the year ended December 31, 2007 as compared to \$259 for the same period in 2006. This increase is primarily the result of the expansion of our facilities to support our sales and marketing functions. We expect that selling, general and administrative expenses will continue to increase in the future due to increased payroll, expanded infrastructure and increased consulting, legal, accounting and investor relations expenses.

## Other Income (Net)

	Year ended December 31,		
	2007	2006	Change
Total other income (net)	\$ 5,941	\$ 1,462	\$ 4,479

Other income (net) consists of investment income and was \$5,941 and \$1,462 for the years ended December 31, 2007 and 2006, respectively. The increase of \$4,479 was due to an increase in the cash and short-term investments held during the full year 2007 as compared with 2006. The increase in cash and short-term investments was primarily a result of the completion of our initial public offering in November 2006.

We anticipate that our interest income will be lower in the future as we continue to use our cash and short-term investments for our operating cash needs and capital purchases.

## Results of Operations

### Comparison of the Years Ended December 31, 2006 and 2005

#### Revenue

	Year ended December 31,		
	2006	2005	Change
Research and development revenue	\$ 2,505	\$ 106	\$ 2,399
License fee and royalty revenue from related parties	257	242	15
Grant revenue	1,828	2,433	(605)
Total revenue	\$ 4,590	\$ 2,781	\$ 1,809

Total revenues were \$4,590 for the year ended December 31, 2006 as compared to \$2,781 for the year ended December 31, 2005. We recognized revenue from research and development services of \$2,505 and \$106 during the years ended December 31, 2006 and 2005, respectively. The primary reason for the increase in revenue during 2006 was the recognition of \$2,500 of deferred revenue associated with the termination of the Company's joint development arrangement with BP. We also recognized government grant revenue of \$1,828 and \$2,433 during the years ended December 31, 2006 and 2005, respectively. Government grant revenue declined due to the completion of an Advanced Technology Program in 2005 and a United States Department of Agriculture program in the first quarter of 2006. These decreases were offset in part by new grant programs in 2006 and increased Department of Energy grant activity. Total license and royalty revenue was \$257 for the year ended December 31, 2006 as compared to \$242 for the year ended December 31, 2005.

#### Expense

	Year ended December 31,		
	2006	2005	Change
Research and development expenses, including cost of revenue	\$ 11,235	\$ 5,980	\$ 5,255
Selling, general, and administrative expenses	10,879	3,825	7,054
Total operating expenses	\$ 22,114	\$ 9,805	\$ 12,309

### **Research and Development Expenses**

Research and development expenses increased to \$11,235 in 2006 from \$5,980 in 2005. The increase was primarily due to the growth of pre-commercial manufacturing of Mirel and related product development activities. The expense attributable to pre-commercial manufacturing was \$3,522 and \$703 in 2006 and 2005 respectively. We also had higher employee payroll and related expenses, \$3,831 in 2006 and \$2,593 in 2005, due to an increase in research and development personnel for our microbial fermentation platform, to support our collaborative arrangement with ADM, and for our switchgrass research program.

### **Selling, General and Administrative Expenses**

Selling, general and administrative expenses for 2006 increased to \$10,879 from \$3,825 in 2005. The increase was primarily due to the recognition of stock-based compensation expense, which amounted to \$3,339 during 2006. The stock-based compensation expense increase was primarily due to the adoption of SFAS 123(R) on January 1, 2006. In addition, performance-based options, previously granted to an officer of the company and options to consultants, which were marked to market during 2006, contributed to additional stock-based compensation expense. We had additional employee payroll and related expenses, \$3,306 in 2006 and \$883 in 2005, and increased professional fees and consulting related fees, \$2,703 in 2006 and \$2,299 in 2005, to prepare for the commercialization of Mirel, to support our growing operations, and to provide for the administrative requirements of being a public company. Expenses were higher due to the following activities: we hired two key officers during 2006 to build and manage our sales and marketing function, we increased our finance and legal personnel to support the requirements of being a public company, and we appointed additional independent directors to our board. There were also additional expenses incurred in the fourth quarter of 2006 for directors and officers insurance, directors' fees, professional fees and other expenses related to being a public company.

### **Other Income (Net)**

	<b>Year ended December 31,</b>		
	<b>2006</b>	<b>2005</b>	<b>Change</b>
Total other income (net)	\$ 1,462	\$ (601)	\$ 2,063

Other income (net) increased to \$1,462 in 2006 from \$(601) in 2005 primarily due to higher cash and short-term investment balances during 2006. Cash and short-term investments were \$122,080 and \$3,174 at December 31, 2006 and 2005 respectively. The increase in cash and short-term investments was primarily a result of the completion of the initial public offering in November 2006 and issuance of the Series 05 preferred stock in January 2006. In addition, during 2005 we recorded an asset impairment charge of \$700 with respect to our investment in Tepha, Inc., a related party. We did not incur any additional such charges during 2006 as this asset had no remaining net book value. See Note 10 to our consolidated financial statements included in this report for further discussion.

## 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.

We fund our cash requirements primarily through the following methods:

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

Currently our products are in the pre-commercial stage of development and large-scale commercial sales have not begun. In addition, 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, 2007, we had an accumulated deficit of \$94,112. Our total unrestricted cash, cash equivalents and short-term investments as of December 31, 2007 were \$109,326 as compared to \$122,080 at December 31, 2006. As of December 31, 2007, we had no outstanding debt.

Our cash and cash equivalents at December 31, 2007 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. Restricted cash of \$498 was held at December 31, 2007 in connection with the lease agreement for our facility in Cambridge, Massachusetts. Short-term 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. At December 31, 2007, we were in compliance with this policy.

We believe that our cash, cash equivalents and short-term securities, the interest we earn on these balances, as well as cash expected from our ADM alliance will be sufficient to meet our anticipated cash requirements, including cash requirements with respect to the commercial launch of Mirel for at least the next 24 months. If our available cash, cash equivalents, and short-term marketable securities are insufficient to satisfy our liquidity requirements, or if we develop additional products, we may need to sell additional equity or debt securities or obtain a credit facility. The sale of additional equity and debt securities may result in additional dilution to our stockholders. If we raise additional funds through the issuance of debt securities or preferred stock, these securities could have rights senior to those of our common stock and could contain covenants that would restrict our operations. We may require additional capital beyond our currently forecasted amounts. Any such required additional capital may not be available on reasonable terms, if at all. If we are unable to obtain additional financing, we may be required to reduce the scope of, delay or eliminate some or all of our planned research, development and commercialization activities, which could harm our business.

Net cash used in operating activities was \$10,900 during the year ended December 31, 2007, compared to net cash used in operating activities of \$3,603 and \$4,394 in 2006 and 2005, respectively. The net cash used in 2007 primarily reflects the net loss for 2007 offset by an increase in deferred revenue of \$9,869, and includes non-cash stock-based compensation expense of \$4,559, 401(k) company common stock matching expense of \$276 and depreciation expense of \$1,451. The increase in deferred revenue was due to an increase in pre-commercial plant construction and operations that are subject to our cost sharing collaborative arrangement with ADM and continued support payments from ADM.

Net cash of \$5,804 was provided by investing activities during the year ended December 31, 2007, compared to net cash used in investing activities of \$97,076 and \$1,905 in 2006 and 2005, respectively.

Cash provided by investing activities in 2007 represents net cash provided from the purchase and maturity of investments and a cash outflow to purchase property and equipment. Purchases of property and equipment totaled \$4,662 during the year ended December 31, 2007, as compared to \$1,544 and \$1,870 in the years ended December 31, 2006 and 2005, respectively. Property and equipment additions in 2007 consisted primarily of capital expenditures relating to the construction of our pre-commercial manufacturing facility. Net cash used in investing activities may fluctuate from period to period due to the timing of our capital expenditures and other investments.

Net cash of \$2,600 was provided by financing activities during the year ended December 31, 2007, compared to \$124,026 and \$4,982 provided by financing activities during the years ended December 31, 2006 and 2005, respectively. Proceeds from financing activities in 2007 consisted of proceeds from the exercise of options and warrants. During the year end December 31, 2006, \$106,863 was provided from our initial public offering.

#### Off-Balance Sheet Arrangement

As of December 31, 2007, 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, 2007:

	Payments Due by Period				
	Total	Less than 1 year	2-3 years	4-5 years	More than 5 years
Operating lease obligations	\$ 7,086	\$ 1,166	\$ 2,340	\$ 2,262	\$ 1,318
Purchase obligations	799	166	533	50	50
<b>Total</b>	<b>\$ 7,885</b>	<b>\$ 1,332</b>	<b>\$ 2,873</b>	<b>\$ 2,312</b>	<b>\$ 1,368</b>

Our lease obligations relate to current office and laboratory space. These leases expire through May 2014. Upon expiration of our operating leases we expect to renew the existing leases, or contract for new leased facilities, at prevailing rates.

During 2007, we entered into a joint research arrangement, known as the Cooperative Research Centre for Sugar Industry Innovation through Biotechnology, with the Commonwealth of Australia and various other parties for the purpose of developing and gaining access to certain intellectual property. The Commonwealth of Australia established the program to enhance the transfer of research outputs into commercial or other outcomes of economic, environmental or social benefit to Australia. The terms of the contract stipulate that the contract commenced on January 1, 2007 and our funding commitment continues until July 1, 2010. In connection with this agreement we are obligated to provide funding in the form of cash and in kind exchange. As of December 31, 2007 the cash portion of our obligation was \$504 and the total amount of in kind contribution we are committed to was \$1,453. The in kind contribution consists of salaries and overhead attributable to research associated with the joint research agreement.

#### Related Party Transactions

We have recorded license and royalty revenue from a related party and have an option grant to another related party. We also have various transactions with our alliance partner ADM, a related party. Additionally, we recorded an impairment charge on a related party investment. For a full description, see Note 10 to the consolidated financial statements and Item 13 of this Annual Report on Form 10-K.

## Effects of Inflation

Our assets are primarily monetary, consisting of cash, cash equivalents and short-term investments. Because of their liquidity, these assets are not directly affected by inflation. Since we intend to retain and continue to use our equipment, furniture and fixtures and leasehold improvements, we believe that the incremental inflation related to replacement costs of such items will not materially affect our operations. However, the rate of inflation affects our expenses, such as those for employee compensation, which could increase our level of expenses and the rate at which we use our resources.

## Recent Accounting Pronouncements

In December 2007, the staff of the Securities and Exchange Commission (SEC) published Staff Accounting Bulletin (SAB) 110, *Year-End Help for Expensing Employee Stock Options*, which amends SAB 107 to allow for the continued use, under certain circumstances, of the "simplified" method in developing an estimate of the expected term of "plain vanilla" stock options accounted for under FASB Statement No. 123 (revised 2004), *Share-Based Payment*. The SEC will accept, under certain circumstances, the use of the simplified method beyond December 31, 2007 for "plain vanilla" options as described in SAB 110. We have evaluated SAB 110 and determined that we meet the criteria for continued use of the simplified method since our stock option exercise experience does not provide a reasonable basis upon which to estimate the expected term. We will continue to use the simplified method to develop an estimate of our expected term for "plan vanilla" stock options.

In December 2007, the EITF reached a consensus on EITF Issue 07-1, *Accounting for Collaborative Arrangements*. EITF 07-1 requires collaborators to present the results of activities for which they act as the principal on a gross basis and report any payments received from (made to) other collaborators based on other applicable GAAP or, in the absence of other applicable GAAP, based on analogy to authoritative accounting literature or a reasonable, rational, and consistently applied accounting policy election. Further, EITF 07-1 clarified that the determination of whether transactions within a collaborative arrangement are part of a vendor-customer (or analogous) relationship subject to EITF 01-9, "Accounting for Consideration Given by a Vendor to a Customer (Including a Reseller of the Vendor's Products)." EITF 07-1 will be effective for us beginning on January 1, 2009. We are currently evaluating the effect of EITF 07-1 on our consolidated financial statements.

In December 2007, the FASB issued SFAS No. 160, *Noncontrolling Interests in Consolidated Financial Statements—an amendment of Accounting Research Bulletin No. 51*. SFAS 160 addresses the accounting and reporting standards for ownership interests in subsidiaries held by parties other than the parent, the amount of consolidated net income attributable to the parent and to the noncontrolling interest, changes in a parent's ownership interest, and the valuation of retained noncontrolling equity investments when a subsidiary is deconsolidated. SFAS 160 also establishes disclosure requirements that clearly identify and distinguish between the interests of the parent and the interests of the noncontrolling owners. SFAS 160 is effective for fiscal years beginning after December 15, 2008, and will be adopted by the Company in 2009. We are currently evaluating the effect of SFAS 160 on our consolidated financial statements.

In December 2007, the FASB issued SFAS No. 141(R), *Business Combinations*. SFAS No. 141(R) replaces SFAS No. 141, *Business Combinations*. SFAS No. 141(R) requires the acquiring entity in a business combination to recognize the full fair value of assets acquired and liabilities assumed in the transaction; requires certain contingent assets and liabilities acquired to be recognized at their fair values on the acquisition date; requires contingent consideration to be recognized at its fair value on the acquisition date and changes in the fair value to be recognized in earnings until settled; requires the expensing of most transaction and restructuring costs; and generally requires the reversals of valuation allowances related to acquired deferred tax assets and changes to acquired income tax uncertainties to also be recognized in earnings. This accounting standard is effective for financial



statements issued for fiscal years beginning after December 15, 2008. We are currently evaluating the provisions of SFAS No. 141(R) to determine the potential impact, if any, the adoption will have on our financial position and results of operations.

In September 2006, the FASB issued SFAS No. 157, *Fair Value Measurements*. SFAS No. 157 defines fair value, establishes a framework for measuring fair value in generally accepted accounting principles, and expands disclosures about fair value measurements. The standard is effective for financial statements issued for fiscal years beginning after November 15, 2007 and interim periods within those fiscal years. Relative to SFAS No. 157, the FASB proposed FASB Staff Positions ("FSP") 157-a, 157-b and 157-c. FSP 157-a amends SFAS No. 157 to exclude SFAS No. 13, "*Accounting for Leases*", and its related interpretive accounting pronouncements that address leasing transactions, while FSP 157-b delays the effective date of SFAS No. 157 for all non-financial assets and non-financial liabilities, except those that are recognized or disclosed at fair value in the financial statements on a recurring basis. FSP 157-c clarifies the principles in SFAS No. 157 on the fair value measurement of liabilities. We do not believe the adoption of SFAS No. 157 in the first quarter of 2008 will have a material impact on our financial statements.

In February 2007, the FASB issued SFAS no. 159, *The Fair Value Option for Financial Assets and Financial Liabilities—Including an Amendment of FAS 115*. SFAS No. 159 permits entities to choose to measure many financial instruments and certain other items at fair value. The fair value option established by this statement permits all entities to choose to measure eligible items at fair value at specified election dates. A business entity shall report unrealized gains and losses on items for which the fair value option has been elected in earnings (or another performance indicator if the business entity does not report earnings) at each subsequent reporting date. The objective is to improve financial reporting by providing entities with the opportunity to mitigate volatility in reported earnings caused by measuring related assets and liabilities differently without having to apply complex hedge accounting provisions. This Statement is expected to expand the use of fair value measurement, which is consistent with FASB's long-term measurement objectives for accounting for financial instruments. The standard is effective for financial statements issued for fiscal years beginning after November 15, 2007. We do not believe the adoption of SFAS No. 159 in the first quarter of 2008 will have a material impact on our financial statements.

In June 2007, the EITF reached a consensus on EITF Issue No. 07-03, *Accounting for Nonrefundable Advance Payments for Goods or Services to Be Used in Future Research and Development Activities*. EITF 07-03 concludes that non-refundable advance payments for future research and development activities should be deferred and capitalized until the goods have been delivered or the related services have been performed. If an entity does not expect the goods to be delivered or services to be rendered, the capitalized advance payment should be charged to expense. This consensus is effective for fiscal years beginning after December 15, 2007. The initial adjustment to reflect the effect of applying the consensus as a change in accounting principle would be accounted for as a cumulative-effect adjustment to retained earnings as of the beginning of the year of adoption. We do not believe that our adoption in the first quarter of 2008 will have a material impact on our financial statements.

#### **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.

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 marketable securities, 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. Given the short term nature of our investments, anticipated declining interest rates will negatively impact our investment income.

**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 Principal 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 Securities Exchange Act of 1934, as amended. Based on this evaluation, our Chief Executive Officer and our Principal Accounting Officer concluded that as of December 31, 2007 our disclosure controls and procedures are effective as of December 31, 2007 to provide reasonable assurance that information we are required to disclose in reports that we file or submit under the Securities Exchange Act of 1934 (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 Principal 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 Securities Exchange Act of 1934, as amended. 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, 2007. In making this assessment, management used the criteria set forth in *Internal Control-Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO").

Based on its assessment of internal control over financial reporting, management has concluded that, as of December 31, 2007, 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.

The effectiveness of our internal control over financial reporting as of December 31, 2007 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which is included herein.

### **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**

Our policy governing transactions in our securities by our directors, officers, and employees permits our officers, directors, employees, and entities affiliated with our directors to enter into trading plans complying with Rule 10b5-1 under the Securities Exchange Act of 1934, as amended. We have been advised that during the quarter ended December 31, 2007, Brian F. Igoe, our Vice President and Chief Brand Officer, Oliver P. Peoples, our Chief Scientific Officer and Vice President, Research, Anthony J. Sinskey, a Director of the Company, and Vertical Fund I, L.P. and Vertical Fund II, L.P. entered into trading plans in accordance with Rule 10b5-1 and our policy governing transactions in our securities. We undertake no obligation to update or revise the information provided herein, including for revision or termination of an established trading plan. Generally, under these trading plans, the individual relinquishes control over the transactions once the trading plan is put into place. Accordingly, sales under these plans may occur at any time, including possibly before, simultaneously with, or immediately after significant events involving the Company.

We anticipate that, as permitted by Rule 10b5-1 and our policy governing transactions in our securities, some or all of our officers, directors and employees may establish trading plans in the future. We intend to disclose the names of executive officers and directors who establish a trading plan in compliance with Rule 10b5-1 and the requirements of our policy governing transactions in our securities in our future quarterly and annual reports on Form 10-Q and 10-K filed with the Securities and Exchange Commission. However, we undertake no obligation to update or revise the information provided herein, including for revision or termination of an established trading plan, other than in such quarterly and annual reports.

### 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 30, 2008 which is expected to be filed not later than 120 days after the fiscal year end.

### PART IV

#### ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

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

(1) **Financial Statements**

See Index to Financial Statements on page F-1.

(2) **Supplemental Schedules**

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

(3) **Exhibits**

See Item 15(b) below.

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

Exhibit Number	Description
3.1(1)	Amended and Restated Certificate of Incorporation of the Registrant
3.3(1)	Amended and Restated By-laws of the Registrant
4.1(1)	Specimen Stock Certificate for shares of the Registrant's Common Stock
4.2(1)	Form of Common Stock Purchase Warrant issued in each of the Series I Financing, the Series J Financing and the Series 04 financing
10.1†(1)	1995 Stock Plan
10.1.1†(1)	1995 Stock Plan, Form of Incentive Stock Option Agreement
10.1.2†(1)	1995 Stock Plan, Form of Non-Qualified Stock Option Agreement
10.2†(1)	2005 Stock Plan
10.2.1†(1)	2005 Stock Plan, Form of Incentive Stock Option Agreement
10.2.2†(1)	2005 Stock Plan, Form of Non-Qualified Stock Option Agreement
10.3†(1)	2006 Stock Option and Incentive Plan
10.3.1†(1)	2006 Stock Option and Incentive Plan, Form of Incentive Stock Option Agreement
10.3.2†(1)	2006 Stock Option and Incentive Plan, Form of Non-Qualified Stock Option Agreement
10.3.3†(1)	2006 Stock Option and Incentive Plan, Form of Director Non-Qualified Stock Option Agreement

- 10.4#(1) License Agreement between the Registrant and Massachusetts Institute of Technology dated July 15, 1993, as amended
- 10.5#(1) Commercial Alliance Agreement by and among the Registrant, ADM/Metabolix Sales Company, LLC and ADM Polymer Corporation dated July 14, 2006
- 10.6#(1) Operating Agreement of ADM/Metabolix Sales Company, LLC by and between the Registrant and ADM Polymer Corporation dated July 14, 2006
- 10.7(1) Letter Agreement by and between the Registrant and Archer Daniels Midland Company dated November 3, 2004
- 10.8#(1) Technology Alliance and Option Agreement by and between the Registrant and ADM Polymer Corporation dated as of November 4, 2004
- 10.9#(1) First Amendment to Technology Alliance and Option Agreement by and between the Registrant and ADM Polymer Corporation dated as of September 8, 2005
- 10.10†\* Employment Agreement between the Registrant and Richard P. Eno dated February 20, 2008
- 10.11†(1) Employment Agreement between the Registrant and Oliver P. Peoples dated July 20, 2006
- 10.12†(1) Amended and Restated Employment Agreement between the Registrant and Johan van Walsem dated September 22, 2006
- 10.13†(1) Amended and Restated Employment Agreement between the Registrant and Robert C. Findlen dated September 22, 2006
- 10.14†(1) Employment Agreement between the Registrant and Brian F. Igoe dated August 29, 2006
- 10.15†(1) Form of Employee Noncompetition, Nondisclosure and Inventions Agreement with Oliver P. Peoples and Johan van Walsem
- 10.16†(1) Form of Noncompetition, Nondisclosure and Inventions Agreement with Robert C. Findlen and Brian F. Igoe
- 10.17†(4) Employment Agreement between the Registrant and Jay Kouba dated June 7, 2007
- 10.18†(5) Separation Agreement between the Registrant and James J. Barber dated May 3, 2007
- 10.19†(1) Form of Indemnification Agreement between the Registrant and its Directors and Officers
- 10.20(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
- 10.21(3) Lease between Fortune Wakefield, LLC ("Landlord") and Metabolix, Inc. dated March 30, 2007
- 10.22(1) Fifth Amended and Restated Stockholders Agreement by and among the Registrant and certain of its stockholders dated January 19, 2006
- 10.23(1) Amendment No. 1 to Fifth Amended and Restated Stockholders Agreement by and among the Registrant and certain of its stockholders dated July 12, 2006
- 10.24(1) Stock Purchase Agreement between the Registrant and Archer Daniels Midland Company dated July 12, 2006

10.25#(1)	License Agreement between the Registrant and Tepha, Inc. dated as of October 1, 1999
10.26#(1)	License Agreement between the Registrant and Tepha, Inc. dated as of September 9, 2003
10.27(6)*	Exclusive License Agreement between the Registrant and Abbott Laboratories dated November 12, 2007
10.28†*	Form of Employee Noncompetition, Confidentiality and Inventions Agreement with Richard P. Eno
21.1(2)	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
32.1*	Certification Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

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† 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.

(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 2006 Annual Report on Form 10-K (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 March 31, 2007 (File No. 001-33133)

(4) Incorporated by reference herein to the exhibits to the Company's Report on Form 8-K/A filed June 19, 2007 (File No. 001-33133)

(5) Incorporated by reference herein to the exhibits to the Company's Report on Form 8-K/A filed May 22, 2007 (File No. 001-33133)

(6) Confidential treatment has been requested for certain portions of this document. Such provisions have been filed separately with the Commission.

\* Filed herewith



METABOLIX, INC.

Index to Consolidated Financial Statements

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<a href="#"><u>Report of Independent Registered Public Accounting Firm</u></a>	F-2
<a href="#"><u>Consolidated Balance Sheets as of December 31, 2007 and 2006</u></a>	F-3
<a href="#"><u>Consolidated Statements of Operations for the Years Ended December 31, 2007, 2006, and 2005</u></a>	F-4
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## 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, of stockholders' equity (deficit) and comprehensive loss, and of cash flows present fairly, in all material respects, the financial position of Metabolix, Inc. and its subsidiary at December 31, 2007 and 2006, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2007 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2007, based on criteria established in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Annual Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on these financial statements and on the Company's internal control over financial reporting based on our audits (which was an integrated audit in 2007). 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 and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included 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. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

As discussed in Note 3 to the consolidated financial statements, the Company changed the manner in which it accounts for share-based compensation effective January 1, 2006 and uncertain tax positions effective January 1, 2007.

A company's 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. A company's 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 the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, 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.

/s/ PricewaterhouseCoopers LLP

Boston, Massachusetts  
March 13, 2008

METABOLIX, INC.

CONSOLIDATED BALANCE SHEETS

(In thousands, except share and per share amounts)

	December 31, 2007	December 31, 2006
<b>Assets</b>		
Current assets:		
Cash and cash equivalents	\$ 22,686	\$ 25,182
Short-term investments	86,640	96,898
Accounts receivable	133	58
Due from related parties	1,216	521
Unbilled receivable	198	90
Prepaid expenses and other current assets	673	651
<b>Total current assets</b>	<b>111,546</b>	<b>123,400</b>
Restricted cash	498	498
Property and equipment, net	6,890	3,673
Other assets	70	25
<b>Total assets</b>	<b>\$ 119,004</b>	<b>\$ 127,596</b>
<b>Liabilities and Stockholders' Equity</b>		
Current Liabilities:		
Accounts payable	\$ 299	\$ 1,604
Accrued expenses	4,195	1,391
Current portion of deferred rent	165	166
Deferred revenue	—	60
<b>Total current liabilities</b>	<b>4,659</b>	<b>3,221</b>
Deferred rent	883	1,048
Long-term deferred revenue	24,180	13,667
Other long-term liabilities	80	72
<b>Total liabilities</b>	<b>29,802</b>	<b>18,008</b>
Commitments and contingencies (Note 9)		
Stockholders' Equity:		
Common stock (\$0.01 par value per share); 100,000,000 shares authorized at December 31, 2007 and 2006, 22,576,111 and 20,574,412 shares issued and outstanding at December 31, 2007 and 2006, respectively	226	206
Additional paid-in capital	182,852	175,803
Deferred compensation	—	(212)
Accumulated other comprehensive income	236	28
Accumulated deficit	(94,112)	(66,237)
<b>Total stockholders' equity</b>	<b>89,202</b>	<b>109,588</b>
<b>Total liabilities and stockholders' equity</b>	<b>\$ 119,004</b>	<b>\$ 127,596</b>

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,		
	2007	2006	2005
<b>Revenue:</b>			
Research and development revenue	\$ 147	\$ 2,505	\$ 106
License fee revenue	500	—	—
License fee and royalty revenue from related parties	157	257	242
Grant revenue	879	1,828	2,433
<b>Total revenue</b>	<b>1,683</b>	<b>4,590</b>	<b>2,781</b>
<b>Operating expenses:</b>			
Research and development expenses, including cost of revenue	19,901	11,235	5,980
Selling, general, and administrative expenses	15,598	10,879	3,825
<b>Total operating expenses</b>	<b>35,499</b>	<b>22,114</b>	<b>9,805</b>
<b>Loss from operations</b>	<b>(33,816)</b>	<b>(17,524)</b>	<b>(7,024)</b>
<b>Other income (expense):</b>			
Interest income	5,941	1,467	109
Interest expense	—	(5)	(10)
Loss on investment in related party	—	—	(700)
<b>Net loss</b>	<b>\$ (27,875)</b>	<b>\$ (16,062)</b>	<b>\$ (7,625)</b>
<b>Net loss per share:</b>			
Basic and Diluted	\$ (1.27)	\$ (2.96)	\$ (2.56)
<b>Number of shares used in per share calculations:</b>			
Basic and Diluted	21,997,397	5,432,586	2,975,116

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

METABOLIX, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS

(In thousands)

	2007	2006	2005
<b>Cash flows from operating activities</b>			
Net loss	\$ (27,875)	\$ (16,062)	\$ (7,625)
Adjustments to reconcile net loss to cash used in operating activities:			
Depreciation and amortization	1,451	964	315
Charge for 401(k) company common stock match	276	—	—
Stock-based compensation	4,559	3,505	27
Loss on investment in related party	—	—	700
Changes in operating assets and liabilities:			
Accounts receivable	(75)	30	(3)
Unbilled receivable	(108)	282	(32)
Due from related party	(111)	(7)	5
Prepaid expenses and other assets	(67)	(529)	(146)
Accounts payable	(1,305)	304	(196)
Accrued expenses	2,652	479	105
Deferred lease obligation	(166)	(165)	(165)
Deferred revenue	9,869	7,596	2,621
Net cash used in operating activities	(10,900)	(3,603)	(4,394)
<b>Cash flows from investing activities</b>			
Purchase of property and equipment	(4,662)	(1,544)	(1,870)
Change in restricted cash	—	(2)	1
Purchase of short term investments	(190,862)	(118,486)	(1,324)
Proceeds from sale and maturity of short-term investments	201,328	22,956	1,288
Net cash provided by (used) in investing activities	5,804	(97,076)	(1,905)
<b>Cash flows from financing activities</b>			
Principal payments for capitalized lease obligations	—	(63)	(117)
Proceeds from issuance of redeemable convertible preferred stock and warrants, net of issuance costs	—	16,819	4,774
Payments on convertible promissory note	—	—	(300)
Advances from investors	—	—	613
Proceeds from options exercised	2,459	91	12
Proceeds from warrants exercised	141	316	—
Proceeds from initial public offering net of issuance costs and refund of fractional shares due to reverse stock split	—	106,863	—
Net cash provided by financing activities	2,600	124,026	4,982
Net increase (decrease) in cash and cash equivalents	(2,496)	23,347	(1,317)
Cash and cash equivalents at beginning of period	25,182	1,835	3,152
Cash and cash equivalents at end of period	\$ 22,686	\$ 25,182	\$ 1,835
<b>Supplemental disclosure of cash flow information</b>			
Cash paid during the year for interest	\$ —	\$ 5	\$ 10
<b>Supplemental disclosure of noncash activities</b>			
Conversion of advances from investors to preferred stock	—	(613)	—
Conversion of preferred stock to common stock	—	61,443	—

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

**METABOLIX, INC.**  
**CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (DEFICIT) AND COMPREHENSIVE LOSS**  
(In thousands, except share amounts)

	Common Stock		Treasury Stock		Additional Paid-In Capital	Deferred Compensation	Accumulated other comprehensive income	Accumulated Deficit	Stockholders' Equity (Deficit)	Total Comprehensive Loss
	Shares	Par Value	Shares	Amount						
<b>Balance, December 31, 2004</b>	1,808,641	\$ 18	10,624	\$ (35)	\$ 3,595	\$ —	\$ —	\$ (42,550)	\$ (38,972)	—
Exercise of common stock options	4,187				12				12	
Stock-based compensation related to stock options					27				27	
Net loss								(7,625)	(7,625)	(7,625)
<b>Balance, December 31, 2005</b>	1,812,828	\$ 18	10,624	\$ (35)	\$ 3,634	\$ —	\$ —	\$ (50,175)	\$ (46,558)	
2005 Comprehensive loss										\$ (7,625)
Exercise of common stock warrants	383,586	4			312				316	
Exercise of common stock options	40,867	1			90				91	
Stock-based compensation related to stock options					3,717	(212)			3,505	
Treasury stock restored to authorized but unissued	(10,624)	—	(10,624)	35	(35)				—	
Conversion of redeemable convertible preferred stock into common stock upon initial public offering	9,992,041	100			61,343				61,443	
Issuance of common stock upon initial public offering, net of offering costs of \$10,153	8,355,714	83			106,742				106,825	
Change in unrealized gain on investments							28		28	28
Net loss								(16,062)	(16,062)	(16,062)
<b>Balance, December 31, 2006</b>	20,574,412	\$ 206	—	\$ —	\$ 175,803	\$ (212)	\$ 28	\$ (66,237)	\$ 109,588	
2006 Comprehensive loss										\$ (16,034)
Exercise of common stock warrants	975,479	10			131				141	
Exercise of common stock options	1,021,354	10			2,449				2,459	
Stock-based compensation related to stock options					4,347	212			4,559	
Issuances of common stock for 401K match	4,866	—			122				122	
Change in unrealized gain on investments							208		208	208
Net loss								(27,875)	(27,875)	(27,875)
<b>Balance, December 31, 2007</b>	22,576,111	\$ 226	—	\$ —	\$ 182,852	\$ —	\$ 236	\$ (94,112)	\$ 89,202	
2007 Comprehensive loss										\$ (27,667)

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

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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

**1. Nature of Business**

Metabolix, Inc. (the "Company") uses advanced biotechnology to develop environmentally sustainable, economically attractive alternatives to petrochemical-based plastics, energy and chemicals. The Company is a leader in applying the advanced tools of metabolic engineering and molecular biology to efficiently produce biobased plastic in microbial systems and directly in non-food plant crops. The Company is subject to risks common to companies in the biotechnology industry including, but not limited to, development by the Company's competitors of new technological innovations, dependence on key personnel, protection of proprietary technology, the need to obtain additional funding, and compliance with government regulations.

**2. Initial Public Offering**

In November 2006, the Company completed its initial public offering of 7,820,000 shares of common stock at an initial public offering price of \$14.00 per share. Net proceeds were \$99,327 after deducting underwriting discounts and commissions and other offering expenses. Offering expenses, excluding underwriting discounts and commissions, were \$2,489, and included legal, accounting and printing costs and various other fees associated with registration and listing of the Company's common stock. Concurrent with this offering, Archer Daniels Midland Company ("ADM") purchased 535,714 shares at an initial offering price of \$14.00 per share, and the Company realized additional net proceeds of \$7,500. The Company's redeemable convertible preferred stock was converted on a one-to-one basis into 9,992,041 shares of common stock upon the closing of the initial public offering.

**3. Summary of Significant Accounting Policies**

**Principles of Consolidation**

The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries, Metabolix Securities Corporation and Metabolix Canada. Metabolix Canada was closed during 2005. All significant intercompany transactions were eliminated.

**Use of Estimates**

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America 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.

**Short-Term Investments**

The Company considers all highly liquid investments with a maturity date of one year or less at the balance sheet date to be short-term investments. Short-term investments consist of corporate debt and asset backed securities at December 31, 2007 and 2006. All short-term investments were classified as

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

**3. Summary of Significant Accounting Policies (Continued)**

available for sale as of December 31, 2007 and 2006. See Note 5 for further discussion on short-term investments.

**Restricted Cash**

The Company has restricted cash, consisting of a certificate of deposit supporting a letter of credit, of \$498 at December 31, 2007 and 2006, respectively, in connection with one of its leased facilities.

**Comprehensive Income (Loss)**

Statement of Financial Accounting Standards No. 130, *Reporting Comprehensive Income* ("SFAS No. 130"), requires that changes in comprehensive income be shown in the financial statements with the same prominence as other financial statements. Comprehensive income (loss) is comprised of net income (loss) and certain changes in stockholder's equity that are excluded from net income (loss). The Company includes unrealized gains and losses on marketable securities in other comprehensive income (loss).

**Concentration of Credit Risk**

Financial instruments that potentially subject the Company to concentrations of credit risk primarily consist of cash and cash equivalents and short-term investments. The Company primarily invests its excess cash and cash equivalents in money market funds, federal agency notes, U.S. treasury notes, investment-grade commercial paper, and corporate debt securities. Accordingly, the management believes these investments are subject to minimal credit and market risk and are of high credit quality.

**Fair Value of Financial Instruments**

The carrying amounts of the Company's financial instruments as of December 31, 2007 and 2006, which include cash equivalents, accounts receivable, unbilled receivable, accounts payable, and accrued expenses, approximate their fair values due to the short-term nature of these instruments.

**Segment Information**

Statement of Financial Accounting Standards No. 131, *Disclosures about Segments of an Enterprise and Related Information* ("SFAS 131"), establishes standards for reporting information on operating segments in interim and annual financial statements. The Company operates in one segment, which is the business of developing and commercializing technologies for the production of polymers and chemicals in plants and in microbes. The chief operating decision-makers review the Company's operating results on a consolidated basis and manage operations as a single operating segment located, and operated, in the United States of America. All revenue is earned, and all assets are held, in the United States of America.

**Property and Equipment**

Property and equipment are stated at cost less accumulated depreciation. Repairs and maintenance are charged to operations as incurred. Gains and losses on the disposition of equipment are recorded in net income or loss and the related cost and accumulated depreciation are removed from the

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

**3. Summary of Significant Accounting Policies (Continued)**

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 the lessor in accordance with Statement of Financial Accounting Standards No. 13, *Accounting for Leases* ("SFAS 13"). Under SFAS 13, leasehold improvements made by a lessee that are funded by landlord incentives or allowances under an operating lease should be recorded by the lessee as leasehold improvement assets and amortized over the shorter of their economic lives or the lease term. The Company records landlord incentive received as deferred rent and amortizes those 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 utilizing Statement of Financial Accounting Standards No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets* ("SFAS 144"). SFAS 144 requires that long-lived assets, such as property, plant and equipment, and purchased intangible assets subject to amortization, be reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. SFAS No. 144 further refines the requirements of Statement of Financial Accounting Standards No. 121, *Accounting for the Impairment of Long-Lived Assets and Long-Lived Assets to be Disposed of* ("SFAS No. 121"), 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.

**Redeemable Convertible Preferred Stock**

Prior to its conversion to common stock, the Company's preferred stock contained certain redemption features that were considered outside the control of the Company, including redemption upon a change in control. Therefore the Company presented redeemable convertible preferred stock as temporary equity in the mezzanine level of the consolidated balance sheet. All of the preferred stock was converted to common stock on a one-to-one basis in the fourth quarter of 2006 in conjunction with the Company's initial public offering.

**Research and Development Expenses**

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



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

**3. Summary of Significant Accounting Policies (Continued)**

development expenses. The Company's portion of the costs incurred by ADM relating to the pre-commercial manufacturing of Mirel are netted against amounts due from ADM and recorded as due from related party on the face of the balance sheet.

**Revenue Recognition**

The Company recognizes revenue in accordance with the Staff Accounting Bulletin No. 104, *Revenue Recognition* ("SAB 104"), and Emerging Issues Task Force (EITF) Issue No. 00-21, *Revenue Arrangements with Multiple Deliverables*. Principal sources of revenue are government grants, license fees, royalty revenues and research and development payments that are primarily derived from collaborative agreements with other companies.

The Company's research and development revenue includes revenue from research services and delivery of specified materials or sample product produced from the research services. Revenue is recognized upon completion of the related services. Revenue related to product sales from the Company's pre-commercial manufacturing operations have been recorded in research and development revenue in the consolidated statements of operations.

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

The Company analyzes its multiple element arrangements to determine whether the elements can be separated and accounted for individually as separate units of accounting in accordance with EITF No. 00-21. The Company recognizes up-front license payments or technology access fees as revenue if the license or access fee has stand-alone value and the fair value of the undelivered items can be determined. If the license is considered to have stand-alone value but the fair value of any of the undelivered services or items cannot be determined, the license payments are initially deferred and recognized as revenue over the period of performance of undelivered services or as undelivered items are delivered.

Revenue from milestone payments related to arrangements under which the Company has continuing performance obligations are recognized as revenue upon achievement of the milestone only if all of the following conditions are met: the milestone payments are nonrefundable; achievement of the milestone was not reasonably assured at the inception of the arrangement; substantive effort is involved in achieving the milestone; and the amount of the milestone is reasonable in relation to the effort expended or the risk associated with the achievement of the milestone. If any of these conditions are not met, the milestone payments are deferred and recognized as revenue over the term of the arrangement as the Company completes its performance obligations.

Government grant revenue is earned as research expenses related to the grants are incurred.

**Intellectual Property Costs**

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

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

**3. Summary of Significant Accounting Policies (Continued)****Stock-Based Compensation**

On January 1, 2006, the Company adopted Statement of Financial Accounting Standards No. 123(R), *Share-Based Payments* ("SFAS No. 123(R)"). Under the provisions of SFAS No. 123(R), compensation cost recognized for the year ended December 31, 2006 and 2007 includes compensation cost for all share-based payments granted to employees subsequent to January 1, 2006, based on the grant-date fair value estimated in accordance with the provisions of SFAS No. 123(R) and will be recognized over the vesting period of the applicable award on a straight-line basis. There is no expense recorded for options which were granted prior to January 1, 2006 under the minimum value method and with an exercise price equal to the fair value of common stock and that had a fixed measurement date at the time of grant.

Prior to January 1, 2006, as permitted by Statement of Financial Accounting Standards No. 123, *Accounting for Stock-Based Compensation* ("SFAS No. 123"), the Company accounted for its stock-based awards to employees and directors using the intrinsic value method prescribed in Accounting Principles Board Opinion No. 25 ("APB No. 25"), *Accounting for Stock Issued to Employees*, and related interpretations. The Company recognized compensation expense for stock options granted to nonemployees in accordance with the requirements of SFAS No. 123 and Emerging Issues Task Force ("EITF") Issue No. 96-18, *Accounting for Equity Instruments that Are Issued to Other than Employees for Acquiring, or in Conjunction with Selling, Goods or Services* ("EITF 96-18"). EITF 96-18 required that such equity instruments be recorded at their fair value at the measurement date, which is generally the vesting date of the instruments. Therefore, the measurement of stock-based compensation was subject to periodic adjustments as the underlying equity instruments vest. See Note 13 for a description of the impact of this standard on the Company's financial statements.

**Basic and Diluted Net Loss per Common Share**

Basic net loss per share is computed by dividing net loss by the weighted-average number of shares of common stock outstanding and warrants outstanding that were previously issued for little or no consideration, excluding the dilutive effects of common stock equivalents. Common stock equivalents include stock options, certain warrants and convertible securities. Diluted net income per share assumes the conversion of all outstanding shares of redeemable convertible preferred stock using the "if converted" method, if dilutive, and includes the dilutive effect of common stock equivalents under the treasury stock method.

The number of shares of potentially dilutive common stock related to redeemable convertible preferred stock, options, and warrants that were excluded from the calculation of dilutive shares since

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

## 3. Summary of Significant Accounting Policies (Continued)

the inclusion of such shares would be anti-dilutive for the three years ended December 31, 2007 are shown below:

	Year ended December 31,		
	2007	2006	2005
Redeemable convertible preferred stock	—	8,471,666	7,605,556
Options	2,151,784	2,764,647	2,036,982
Warrants	69,343	829,890	939,150
Total	2,221,127	12,066,203	10,581,688

## Foreign Currency Translation

The financial statements of the Company's former wholly-owned Canadian subsidiary, which was closed during 2005, were remeasured using the U.S. dollar as the functional currency. Monetary assets and liabilities were translated using the current exchange rate. Nonmonetary assets and liabilities were remeasured using historical exchange rates. Revenue and expenses were remeasured using average exchange rates for the period, except for items related to nonmonetary assets and liabilities, which were translated using historical exchange rates. All remeasurement gains and losses were included in determining net loss for the period in which exchange rates changed and were immaterial for all years presented.

## Income Taxes

The Company follows the provisions of Statement of Financial Accounting Standards No. 109, *Accounting for Income Taxes* ("SFAS No. 109"). SFAS No. 109 requires recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the financial statements or tax returns. Under this method, deferred tax assets and liabilities are determined based on the difference between the financial statement and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. A valuation allowance is provided to reduce the deferred tax asset to a level which, more likely than not, will be realized. In addition, the company adopted Financial Accounting Standards Interpretation No. 48, *Accounting for Uncertainty in Income Taxes* ("FIN 48") on January 1, 2007. See Note 14 for further discussion of income taxes.

## Recent Accounting Pronouncements

In December 2007, the staff of the Securities and Exchange Commission (SEC) published Staff Accounting Bulletin (SAB) 110, *Year-End Help for Expensing Employee Stock Options*, which amends SAB 107 to allow for the continued use, under certain circumstances, of the "simplified" method in developing an estimate of the expected term of "plain vanilla" stock options accounted for under FASB Statement No. 123 (revised 2004), *Share-Based Payment*. The SEC will accept, under certain circumstances, the use of the simplified method beyond December 31, 2007 for "plain vanilla" options as described in SAB 110. We have evaluated SAB 110 and determined that we meet the criteria for continued use of the simplified method since our stock option exercise experience does not provide a

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

**3. Summary of Significant Accounting Policies (Continued)**

reasonable basis upon which to estimate the expected term. The Company will continue to use the simplified method to develop an estimate of our expected term for "plain vanilla" stock options.

In December 2007, the EITF reached a consensus on EITF Issue 07-1, *Accounting for Collaborative Arrangements*. EITF 07-1 requires collaborators to present the results of activities for which they act as the principal on a gross basis and report any payments received from (made to) other collaborators based on other applicable GAAP or, in the absence of other applicable GAAP, based on analogy to authoritative accounting literature or a reasonable, rational, and consistently applied accounting policy election. Further, EITF 07-1 clarified that the determination of whether transactions within a collaborative arrangement are part of a vendor- customer (or analogous) relationship subject to EITF 01-9, "Accounting for Consideration Given by a Vendor to a Customer (Including a Reseller of the Vendor's Products)." EITF 07-1 will be effective for us beginning on January 1, 2009. The Company is currently evaluating the effect of EITF 07-1 on our consolidated financial statements.

In December 2007, the FASB issued SFAS No. 160, *Noncontrolling Interests in Consolidated Financial Statements—an amendment of Accounting Research Bulletin No. 51*. SFAS 160 addresses the accounting and reporting standards for ownership interests in subsidiaries held by parties other than the parent, the amount of consolidated net income attributable to the parent and to the noncontrolling interest, changes in a parent's ownership interest, and the valuation of retained noncontrolling equity investments when a subsidiary is deconsolidated. SFAS 160 also establishes disclosure requirements that clearly identify and distinguish between the interests of the parent and the interests of the noncontrolling owners. SFAS 160 is effective for fiscal years beginning after December 15, 2008, and will be adopted by the Company in 2009. The Company is currently evaluating the effect of SFAS 160 on our consolidated financial statements.

In December 2007, the FASB issued SFAS No. 141(R), *Business Combinations*. SFAS No. 141(R) replaces SFAS No. 141, *Business Combinations*. SFAS No. 141(R) requires the acquiring entity in a business combination to recognize the full fair value of assets acquired and liabilities assumed in the transaction; requires certain contingent assets and liabilities acquired to be recognized at their fair values on the acquisition date; requires contingent consideration to be recognized at its fair value on the acquisition date and changes in the fair value to be recognized in earnings until settled; requires the expensing of most transaction and restructuring costs; and generally requires the reversals of valuation allowances related to acquired deferred tax assets and changes to acquired income tax uncertainties to also be recognized in earnings. This accounting standard is effective for financial statements issued for fiscal years beginning after December 15, 2008. The Company is currently evaluating the provisions of SFAS No. 141(R) to determine the potential impact, if any, the adoption will have on our financial position and results of operations.

In September 2006, the Financial Accounting Standards Board ("FASB") issued SFAS No. 157, *Fair Value Measurements* ("SFAS No. 157"). SFAS No. 157 defines fair value, establishes a framework for measuring fair value in generally accepted accounting principles and expands disclosures about fair value measurements. The standard is effective for financial statements issued for fiscal years beginning after November 15, 2007 and interim periods within those fiscal years. Relative to SFAS No. 157, the FASB proposed FASB Staff Positions ("FSP") 157-a, 157-b and 157-c. FSP 157-a amends SFAS No. 157 to exclude SFAS No. 13, "Accounting for Leases", and its related interpretive accounting pronouncements that address leasing transactions, while FSP 157-b delays the effective date of SFAS

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

**3. Summary of Significant Accounting Policies (Continued)**

No. 157 for all non-financial assets and non-financial liabilities, except those that are recognized or disclosed at fair value in the financial statements on a recurring basis. FSP 157-c clarifies the principles in SFAS No. 157 on the fair value measurement of liabilities. The adoption of SFAS No. 157 in the first quarter of 2008 is not expected to have a material impact on the financial statements of the Company.

In February 2007, the FASB issued SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities—Including an Amendment of FAS 115* ("SFAS No. 159"). SFAS No. 159 permits entities to choose to measure many financial instruments and certain other items at fair value. The fair value option established by this statement permits all entities to choose to measure eligible items at fair value at specified election dates. A business entity shall report unrealized gains and losses on items for which the fair value option has been elected in earnings (or another performance indicator if the business entity does not report earnings) at each subsequent reporting date. The objective is to improve financial reporting by providing entities with the opportunity to mitigate volatility in reported earnings caused by measuring related assets and liabilities differently without having to apply complex hedge accounting provisions. SFAS No. 159 is expected to expand the use of fair value measurement, which is consistent with the FASB's long-term measurement objectives for accounting for financial instruments. The standard is effective for financial statements issued for fiscal years beginning after November 15, 2007. The adoption of SFAS No. 159 in the first quarter of 2008 is not expected to have a material impact on the financial statements of the Company.

In June 2007, the FASB's Emerging Issues Task Force, reached a consensus on EITF Issue No. 07-03, *Accounting for Nonrefundable Advance Payments for Goods or Services to Be Used in Future Research and Development Activities*. EITF 07-03 concludes that non-refundable advance payments for future research and development activities should be deferred and capitalized until the goods have been delivered or the related services have been performed. If an entity does not expect the goods to be delivered or services to be rendered, the capitalized advance payment should be charged to expense. This consensus is effective for fiscal years beginning after December 15, 2007. The initial adjustment to reflect the effect of applying the consensus as a change in accounting principle would be accounted for as a cumulative-effect adjustment to retained earnings as of the beginning of the year of adoption. The adoption of EITF 07-03 in the first quarter of 2008 is not expected to have a material impact on the financial statements of the Company.

**4. Significant Collaborations****ADM Agreement**

On November 3, 2004, the Company signed an agreement with ADM Polymer Corporation ("ADM"), a subsidiary of Archer Daniels Midland Company, to establish an alliance whereby the Company would provide technology and licenses thereto and research and development services, and ADM would provide manufacturing services and capital necessary to produce biobased plastic, Mirel™ on a commercial scale. This agreement was amended by the parties on September 8, 2005 to define certain cost sharing activities related to pre-commercial manufacturing, to change certain milestones and to make other minor modifications. The arrangement is comprised of two primary agreements: (1) the Technology Alliance and Option Agreement and (2) the Commercial Alliance Agreement.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

**4. Significant Collaborations (Continued)*****Technology Alliance and Option Agreement***

The goal of the Technology Alliance and Option Agreement was to demonstrate the capabilities of the Company's fermentation and recovery technologies at commercial scale and to prepare a master plan and budget for the construction of a 110 million pound commercial manufacturing facility, which would provide the basis for entering into the Commercial Alliance Agreement.

The Technology Alliance and Option Agreement provided ADM with an option (the "Option") to enter into a commercial alliance for further research, development, manufacture, use, and sale of *Mirel* on the terms and conditions set forth in the Commercial Alliance Agreement (see below). The Option was exercisable by ADM under certain conditions at any time until 30 days after the expiration of the term of the Technology Alliance and Option Agreement. On July 12, 2006, ADM exercised this Option.

Under the Technology Alliance and Option Agreement, ADM made a nonrefundable, noncreditable upfront payment of \$3,000 to the Company in 2004. In May 2006, the Company received a \$2,000 payment from ADM in recognition of achieving certain technical goals under the Technology Alliance and Option Agreement. Due to future obligations of the Company under the agreements for which fair value cannot be determined, including the requirement to provide research and development activities and recovery services under the Technology Alliance and Option Agreement and certain manufacturing services, including compounding, and sales and marketing activities, and other services under the Commercial Alliance Agreement, the entire upfront payment and milestone payments received have been recorded as deferred revenue. The Company's policy is to expense, as period costs, the direct and incremental costs incurred associated with this collaboration.

The technology alliance and option agreement was amended in 2005. In accordance, with this amendment ADM agreed to reimburse the Company for one-half of certain costs incurred by the Company related to the Company's establishment of pre-commercial manufacturing capabilities. Amounts reimbursed in 2006 and 2005 totaled \$588 and \$621, respectively, and were recorded as deferred revenue. Further reimbursements were made under the Commercial Alliance agreement as noted below.

***Commercial Alliance Agreement***

The Commercial Alliance Agreement specifies the terms and structure of the relationship between the Company and ADM. The primary function of this agreement is to establish the activities and obligations of the Company and ADM by which the parties will commercialize *Mirel*. These activities include: the establishment of a joint sales company, which has been named Telles, to market and sell *Mirel*, the construction of a manufacturing facility capable of producing 110 million pounds of material annually (the "Commercial Manufacturing Facility"), the licensing of technology to Telles and to ADM, and the conducting of various research, development, manufacturing, sales and marketing, compounding and administrative services by the parties.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

**4. Significant Collaborations (Continued)**

Telles is a limited liability company, formed and equally owned by the Company and ADM, and is intended to: (i) serve as the commercial entity to establish and develop the commercial market for Mirel, and conduct the marketing and sales in accordance with the goals of the commercial alliance, (ii) assist in the coordination and integration of the manufacturing, compounding and marketing activities, and (iii) administer and account for financial matters on behalf of the parties. The Company and ADM each have 50% equity and voting interest in Telles.

A summary of the key activities under this agreement is as follows: (i) ADM will arrange for, finance the construction of, and own, a facility in which it will manufacture Mirel under contract to Telles; (ii) the Company will either arrange for and finance the acquisition or construction of a facility in which it will compound Mirel or it will arrange for third parties to compound Mirel; (iii) the Company, acting in the name and on behalf of Telles, will establish the initial market for Mirel. The Company will also continue its research and development efforts to further advance the technology and expand and enhance the commercial potential of Mirel. Subject to certain limitations, ADM will finance the working capital requirements of Telles.

Telles will make up to twelve payments of \$1,575 per calendar quarter to the Company to support these activities during ADM's construction of the Commercial Manufacturing Facility. In the event construction is completed and sale of commercial product commences prior to Telles making all twelve such payments, the quarterly payments will cease and Telles will pay the Company a lump sum equal to the number of remaining unpaid payments multiplied by \$250. Through December 31, 2007, support payments totaling \$12,600 have been received by the Company and recorded as deferred revenue.

During the construction period of the Commercial Manufacturing Facility all pre-commercial material production expenses incurred by ADM and the Company are shared equally. Accordingly, from the execution of this agreement in July 2006 through December 31, 2007, ADM has reimbursed the Company \$4,277. At December 31, 2007 net reimbursements of \$1,094 were due from ADM. All amounts due or received from ADM relating to this agreement are recorded as deferred revenue.

Upon the commencement of commercial sales, Telles will pay the Company royalties on sales as well as reimburse it for the cost of services provided pursuant to the Commercial Alliance Agreement.

While Telles is a fifty-fifty joint venture, ADM will be advancing a disproportionate share of the financial capital needed to construct the manufacturing plant and to fund its activities. Therefore, a preferential distribution of cash flow will be used, whereby all profits (after payment of all royalties, reimbursements and fees) from Telles will be distributed to ADM until ADM's disproportionate investment in the alliance has been returned in full. Once ADM has recouped such amounts, the profits of Telles will be distributed in equal amounts to the parties.

The Commercial Alliance Agreement provides for expansion of the operations of Telles beyond the initial license of 110 million pounds annual production through an equally-owned joint venture. While certain principles of the joint venture have been agreed to, the detailed terms and conditions will not be determined until a later date.

Revenue recognition for amounts deferred through December 31, 2007 is expected to commence approximately at the time of the first commercial sale of *Mirel* and amounts will be recognized proportionately over the period that the final services are provided over the estimated remaining term of the Commercial Alliance Agreement.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

**4. Significant Collaborations (Continued)**

The Commercial Alliance Agreement and related agreements include detailed provisions setting out the rights and obligations of the parties in the event of a termination of the Commercial Alliance Agreement. These provisions include the right for either party to terminate the Commercial Alliance Agreement upon a material default of a material obligation by the other party after a notice and cure period has expired. The parties are also permitted to terminate the Commercial Alliance Agreement if a change in circumstances that is not reasonably within the control of a party makes the anticipated financial return from the project inadequate or too uncertain. Finally, the parties have specific obligations to fulfill in the event of termination or if they file for bankruptcy protection.

**BP America Production Company**

On February 14, 2005, the Company signed a joint development agreement with BP to advance the Company's technology for producing PHA polymers in plants and to conduct an evaluation of the potential for using PHA producing plants in a biomass to energy system. In exchange for the Company completing certain research and development activities, the agreement provided for BP to pay the Company \$500 at the start of each calendar quarter during the term of the agreement with the first two such payments due within five days of the effective date of the agreement. The Company received \$2,000 in 2005 related to this agreement. Due to these amounts being applicable for determining BP's equity participation in a potential future joint venture between the parties, these amounts were recorded as deferred revenue at December 31, 2005.

In January 2006, the Company received notice of termination from BP with respect to the joint development agreement and as a result, there are no longer any continuing obligations from either party. During the year ended December 31, 2006, the Company recognized \$2,500 in revenue from the BP arrangement, consisting of the \$2,000 of deferred revenue and the \$500 final payment due under the arrangement, which was received in June 2006.

**5. Investments**

Short-term investments consist of the following:

	Amortized Cost	Unrealized Gain/(Loss)	Market Value
<b>December 31, 2007</b>			
Corporate debt securities	\$ 64,781	\$ 211	\$ 64,992
Asset-backed securities	21,623	25	21,648
Total	\$ 86,404	\$ 236	\$ 86,640
<b>December 31, 2006</b>			
Corporate Debt securities	\$ 80,604	\$ 26	\$ 80,630
Asset-backed securities	16,266	2	16,268
Total	\$ 96,870	\$ 28	\$ 96,898

As of December 31, 2007 and 2006 the contractual maturity of all investments was one year or less.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

**6. Property and Equipment**

Property and equipment consisted of the following:

	Year Ended December 31,	
	2007	2006
Equipment	\$ 2,597	\$ 2,688
Furniture and Fixtures	175	63
Leasehold improvements	8,117	4,229
Software	92	64
	<hr/>	<hr/>
Total property and equipment, at cost	\$ 10,981	\$ 7,044
Less: Accumulated depreciation	(4,091)	(3,371)
	<hr/>	<hr/>
Property and equipment, net	\$ 6,890	\$ 3,673
	<hr/>	<hr/>

Depreciation expense for the years ended December 31, 2007, 2006, and 2005 was \$1,451, \$964, and \$315 respectively. Accumulated depreciation for equipment acquired under capital leases was \$201 as of December 31, 2005. The company had no leased equipment during 2006 or 2007.

During 2004 the Company received a lease incentive payment of \$1,521 from its lessor for leasehold improvements. The Company has recorded the leasehold improvement as an asset and is amortizing it over its useful life, along with a corresponding deferred rent liability that will be amortized as a reduction of lease expense over the remaining term of the lease.

**7. Convertible Promissory Note**

In conjunction with the purchase of certain technology in 2001, the Company issued a promissory note in the amount of \$2,000. The note accrued interest beginning January 2002 at a rate of 10% per annum, through March 2005. Payments due on the promissory note were due in quarterly installments of \$143 through March 2005. At December 31, 2005, the convertible promissory note had been paid in full.

**8. Accrued Expenses**

Accrued expenses consist of the following:

	Year Ended December 31,	
	2007	2006
Employee compensation and benefits	\$ 1,985	\$ 201
Other	1,035	456
Pre-commercial manufacturing costs	443	384
Professional services	407	306
Contracted research and development	325	44
	<hr/>	<hr/>
Total accrued expenses	\$ 4,195	\$ 1,391
	<hr/>	<hr/>

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

**9. Commitments and Contingencies****Leases**

The Company rents its facilities under operating leases, which expire through May 2014. The Company leased equipment under capital leases with various rates of interest, ranging from 10.07% to 15.71%, with expiration dates through August 2006. All commitments were collateralized by equipment under lease. Rental payments under operating leases for the years ended December 31, 2007, 2006 and 2005 were \$1,152, \$1,051, and \$590, respectively. The deferred rent liability recorded on the balance sheet includes the unamortized balance of the landlord incentive payments and the cumulative difference between actual facility lease payments and lease expense recognized ratably over the operating lease period. At December 31, 2007, the Company's future minimum payments required under operating leases are as follows:

Year Ending December 31,	Minimum lease payment	
2008	\$	1,166
2009		1,166
2010		1,174
2011		1,188
2012		1,074
2013 and thereafter		1,318
Total minimum lease payments		7,086

**Funded Research Arrangement with the University of Massachusetts at Lowell**

The Company has entered into a fee for service agreement with the University of Massachusetts at Lowell to perform certain research and development activities. Under this agreement the Company agreed to pay an annual retainer of \$40 through 2010. As of December 31, 2007, the Company has committed \$120 to the University of Massachusetts at Lowell.

**License Agreement with Massachusetts Institute of Technology ("MIT")**

The Company's exclusive license agreement with MIT requires the Company to pay annual license fees of \$25 and additional potential royalty payments to MIT based on a percentage of net sales of products or services covered by a patent that is subject to the license. There was \$2 and \$62 accrued at December 31, 2007 and 2006, respectively.

**Joint Research Agreement with the Cooperative Research Centre for Sugar Industry Innovation through Biotechnology**

The Company entered a joint research arrangement, known as the Cooperative Research Centre for Sugar Industry Innovation through Biotechnology, with the Commonwealth of Australia and various other parties for the purpose of developing and gaining access to certain intellectual property. The Commonwealth of Australia established the program to enhance the transfer of research outputs into commercial or other outcomes of economic, environmental or social benefit to Australia. The terms of the contract stipulate that the contract commenced on January 1, 2007, and the Company's funding obligation continues until July 1, 2010. In connection with this agreement Metabolix is obligated to

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

**9. Commitments and Contingencies (Continued)**

provide funding in the form of cash and in kind contribution. As of December 31, 2007 the cash portion of our obligation is \$504 and the total amount of in kind contribution the company is committed to is \$1,453. The in kind contribution consists of salaries and overhead attributable to research associated with the joint research agreement. The cash and in kind contributions are recorded as research and development expense as incurred, in the consolidated statements of operations.

**10. Related Party Transactions****Tepha, Inc.**

During 1999, the Company entered into a sublicense agreement with Tepha, Inc. ("Tepha"), to sublicense technology to Tepha. The president, chief executive officer and a director of Tepha was a director of the Company at that time. In addition, the Company directors Messrs. Muller and Giles and Dr. Sinskey serve on the Board of Directors of Tepha. The agreement with Tepha contains provisions for sublicense maintenance fees to be paid to the Company upon Tepha achieving certain financing milestones and for product related milestone payments. Under the agreement, the Company also receives royalties on net sales of licensed products or sublicensing revenues received by Tepha, subject to a minimum payment each year.

The Company recognized license and royalty revenues of \$157, \$257, and \$242, from Tepha for the years ended December 31, 2007, 2006, and 2005 and respectively. As of December 31, 2007 and December 31, 2006, the Company had an outstanding receivable of \$122 and \$11 from Tepha which were recorded as due from related parties in the consolidated balance sheet.

The Company reviewed its preferred stock investment in Tepha for other than temporary impairment in accordance with Statement of Financial Accounting Standard No. 115, Accounting for Certain Investments in Debt and Equity Securities ("SFAS No. 115") and determined that at December 31, 2005, its investment was fully impaired based on its current fair value and, therefore, recorded an asset impairment charge of \$700 in the fourth quarter of 2005.

**ADM**

The Company's collaborative partner ADM made a \$5,000 investment in the Company as part of the Series 05 redeemable convertible preferred stock issuance in January 2006. Concurrent with the Company's initial public offering, ADM purchased \$7,500 of the Company's shares in a private placement. ADM makes various payments to the Company under the collaborative agreements signed during November 2004 and July 2006. See Note 4 for further discussion regarding collaborative agreements with ADM. In addition as of December 31, 2007 and December 31, 2006, the Company had an outstanding balance receivable of \$1,093 and \$511 from ADM which was recorded as due from related parties in the consolidated balance sheet.

**Dr. ChoKyun Rha**

The Company retained Dr. ChoKyun Rha, a related party, to serve as an advisor for the purpose of building and managing business relationships in Asia. Dr. Rha is the spouse of a director of the Company. In consideration for Dr. Rha's services, on September 20, 2005, the Company granted her a nonqualified stock option for the purchase of 16,346 shares of the Company's common stock, vesting

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

**10. Related Party Transactions (Continued)**

over a period of four years, with an exercise price of \$1.65 per share, which was the fair market value per share of the common stock at the date of grant of the option.

**11. Redeemable Convertible Preferred Stock**

In connection with the Company's initial public offering in November 2006 and in accordance with the preferred stock agreements, all outstanding shares of preferred stock were converted into 9,992,041 of the Company's common stock, and at December 31, 2006 there were no shares of preferred stock outstanding.

**Warrants**

In connection with the issuance of the Series H preferred stock during 2001, the Company issued warrants to purchase 108,239 shares of common stock at an exercise price of \$13.21 per share. The warrants expired five years from issuance date. The warrants were recorded at their relative fair value of \$170 as a reduction to the carrying value of the Series H preferred stock and a corresponding increase to additional paid-in capital. The fair value of the warrants was estimated on the date of grant using the Black-Scholes option-pricing model with the following assumptions: no dividend yield, 90% volatility, risk-free interest rate of 5.13%, and a life of five years. In connection with the issuance of Series I preferred stock during 2002, the Company issued warrants to purchase 520,990 shares of common stock at an exercise price of \$13.21 per share; concurrently, the Company issued warrants to purchase 432,983 shares of common stock at an exercise price of \$13.21 per share in connection with the exchange of Series H preferred stock for Series I preferred stock. The warrants expire five years from issuance date. The warrants were recorded at their relative fair value of \$1,553 as a reduction to the carrying value of the Series I preferred stock and a corresponding increase to additional paid-in capital. The fair value of the warrants was estimated on the date of grant using the Black-Scholes option-pricing model with the following assumptions: no dividend yield, 100% volatility, risk-free interest of 4.65%, and a life of five years.

In conjunction with the issuance of the Series I preferred stock during 2003, the Company issued warrants to purchase 221,238 shares of common stock at an exercise price of \$13.21 per share. The warrants expire five years from issuance date. The warrants were recorded at their relative fair value of \$149 as a reduction to the carrying value of the Series I preferred stock and a corresponding increase to additional paid-in capital. The fair value of the warrants was estimated on the date of grant using the Black-Scholes option-pricing model with the following assumptions: no dividend yield, 100% volatility, risk-free interest of 2.27%, and a life of five years.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**11. Redeemable Convertible Preferred Stock (Continued)**

In connection with the issuance of Series J preferred stock, the Company issued warrants to purchase 264,865 shares of common stock at an exercise price of \$0.12 per share; concurrently, the Company issued warrants to purchase 988,004 shares of common stock at an exercise price of \$0.12 per share in connection with the exchange of Series I preferred stock for Series J preferred stock. The warrants expire five years from issuance date. In addition, the Company cancelled warrants to purchase 348,386 shares of common stock at an exercise price of \$13.21 per share. The warrants issued were recorded at their relative fair value of \$1,282 as a reduction to the carrying value of the Series J preferred and a corresponding increase to additional paid-in capital, net of the reversal of the canceled warrants. The fair value of the warrants was estimated on the date of grant using the Black-Scholes option-pricing model with the following assumptions: no dividend yield, 100% volatility, risk-free interest rate of 3.29%, and a life of five years.

In connection with the issuance of the Series J preferred stock during 2004, the Company issued warrants to purchase 46,881 shares of common stock at an exercise price of \$0.12 per share; concurrently, the Company issued warrants to purchase 30,173 shares of common stock at an exercise price of \$0.12 per share in connection with the exchange of Series I preferred stock for Series J preferred stock. The warrants expire five years from issuance date. The warrants were recorded at their relative fair value of \$108 as a reduction to the carrying value of the Series J preferred stock and a corresponding increase to additional paid-in capital. The fair value of the warrants was estimated on the date of grant using the Black-Scholes option-pricing model with the following assumptions: no dividend yield, 100% volatility, risk-free interest rate range of 3.12%—3.29%, and a life of five years.

In connection with signing a lease agreement in 2004, the Company issued the landlord warrants to purchase 4,086 shares of common stock at an exercise price of \$3.30 per share. The warrants expire ten years from the lease term commencement date. The fair value of the warrants was immaterial.

In conjunction with the issuance of Series 04 preferred stock in 2004 and the exchange of the shares of Series J preferred stock, 155,041 warrants to purchase common stock were cancelled resulting in a decrease of additional paid-in capital of \$219.

At December 31, 2007, there were 29,476, 65,257, and 4,086 warrants outstanding with exercise prices of \$0.12, \$13.21, and \$3.30 per share, respectively. During the year ended December 31, 2007, 782,771 and 760,547 of the outstanding \$0.12 and \$13.21 warrants, respectively, were exercised.

**12. Common Stock****Common Stock Issuances**

On September 20, 2006, a 0.8173-for-1 reverse stock split was approved by the Board of Directors and became effective on November 3, 2006. All information in these consolidated financial statements has been retroactively adjusted to reflect such reverse stock split.

During November 2006, the Company completed its initial public offering of 7,820,000 shares of common stock at an initial public offering price of \$14.00 per share. Net proceeds were \$99,327 after deducting underwriting discounts, commissions and other offering expenses. Concurrent with this offering, ADM purchased 535,714 shares at an initial offering price of \$14.00 per share, and the Company realized additional net proceeds of \$7,500. The Company's redeemable convertible preferred stock was converted on a one-to-one basis into 9,992,041 shares of common stock upon the closing of the initial public offering.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**13. Stock-Based Compensation**

In 1995, the Company adopted a stock plan (the "1995 Plan"). The 1995 Plan provided for the granting of incentive stock options, nonqualified stock options, stock awards, and opportunities to make direct purchases of stock, to employees, officers, directors and consultants of the Company. In June 2005, the 1995 Plan was terminated, and the Company adopted a new plan (the "2005 Plan"). No further grants or awards have been, or may be, made under the 1995 Plan. The 2005 Plan provided for the granting of incentive stock options, nonqualified stock options, stock grants, and stock-based awards to employees, officers, directors, and consultants of the Company. The number of shares of common stock authorized for issuance under the 2005 Plan was 1,838,925 shares plus the amount of shares, if any, that were subject to options under the 1995 Stock Plan at June 2, 2005, but which subsequently become unissued upon the cancellation, surrender, or termination of such options. In November 2006, the 2005 Plan was terminated, and the Company adopted a new plan (the "2006 Plan" and, together with the 1995 Plan and the 2005 Plan, referred to as the "Plans"). The 2006 Plan provides for the granting of incentive stock options, non-qualified stock options, stock appreciation rights, deferred stock awards, restricted stock awards, unrestricted stock awards, cash-based awards, and dividend equivalent rights. No further grants or awards have been, or may be, made under the 2005 Plan. Options that are outstanding under the 1995 Plan and 2005 Plan continue to be governed by the 1995 Plan and 2005 Plan, respectively. The 2006 Plan states that not more than 10,000,000 shares shall be issued in the form of Incentive Stock Options under the Plan.

Options granted under the Plans generally vest ratably over four years from the date of hire, or date of commencement of services with the Company for nonemployees, and generally expire ten years from the date of issuance.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

13. Stock-Based Compensation (Continued)

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

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (in years)	Aggregate Intrinsic value
Balance at December 31, 2004	762,635	\$ 3.62		
Granted	1,283,641	1.70		
Exercised	(4,183)	2.78		
Cancelled	(5,111)	2.05		
Balance at December 31, 2005	2,036,982	2.42		
Granted	824,147	10.17		
Exercised	(40,865)	2.23		
Cancelled	(103,020)	7.06		
Balance at December 31, 2006	2,717,244	4.60		
Granted	605,963	22.57		
Exercised	(1,023,953)	2.44		
Cancelled	(147,470)	4.37		
Balance at December 31, 2007	2,151,784	10.70	8.13	\$ 28,332
Vested and expected to vest at December 31, 2007	2,067,793	10.50	8.10	27,627
Exercisable at December 31, 2007	1,049,579	7.04	7.47	17,600

The weighted average grant date fair value per share of options granted during fiscal years 2007, 2006, and 2005 was \$14.08, \$8.76, and \$0.33, respectively. The total intrinsic value of options exercised was \$20,238 and \$683 for the years ended December 31, 2007 and 2006 respectively.

A summary of information about the shares of common stock covered by outstanding and exercisable options under the option plans at December 31, 2007 follows:

Range of Exercise Prices	Stock Options Outstanding			Stock Options Exercisable		
	Number of Shares	Weighted Average Remaining Contractual Life (in years)	Weighted Average Exercise Price per share	Number of Shares	Weighted Average Exercise Price per share	
\$ 1.65—1.84	644,665	7.48	\$ 1.65	392,206	\$ 1.65	
3.30—3.36	271,588	5.36	3.32	232,508	3.31	
5.14—8.81	183,940	8.46	5.34	92,120	5.26	
14.00—16.83	483,654	8.88	14.12	245,529	14.23	
18.67—22.42	201,687	9.60	21.76	50,123	21.97	
23.99—24.97	366,250	9.38	24.18	37,093	23.99	
\$ 1.65—24.97	2,151,784	8.13	\$ 10.70	1,049,579	\$ 7.04	

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 13. Stock-Based Compensation (Continued)

In December 2005, 324,658 options were granted to an officer of the Company, of which 125,863 contained performance based vesting conditions. The 125,863 options were a variable award and were subject to remeasurement which could have resulted in the recording of compensation expense in the future, depending on the probability of achieving certain performance conditions. During the twelve months ended December 31, 2006, 41,954 of the 125,863 variable options granted to the officer of the Company during 2005 were cancelled due to the term expiration; 41,955 of these variable options were deemed to have met the performance conditions in the second quarter of 2006; 41,954 of these variable options were deemed to have met the performance conditions in the fourth quarter of 2006; and as a result \$635 of compensation expense was recorded during the year ended December 31, 2006. Compensation expense of \$36 was recorded during the year ended December 31, 2007 as the officer continued to complete the remaining service conditions related to these options. The remaining \$176 was not recorded as the officer's employment terminated.

## Expense Information for Employee Stock Option Awards

The effect of SFAS No. 123(R) for the years ended December 31, 2007 and 2006 was stock compensation expense of \$4,559 and \$3,505 respectively, which had an impact of \$0.18 and \$0.34 on basic and diluted net loss per share for the years ended December 31, 2007 and 2006. For the year ended December 31, 2005, the Company applied the intrinsic value method of accounting for stock options as prescribed by APB 25. Had compensation expense been determined based on the fair value of the options at the grant date consistent with the provisions of SFAS No. 123, the Company's net loss for the year ended December 31, 2005 would have increased to the pro forma amounts below:

	Year Ended December 31, 2005
Net loss, as reported	\$ (7,625)
Add: Stock-based employee compensation expense included in reported net loss, net of related tax effects	0
Deduct: Stock-based employee compensation expense determined under fair value method, net of related tax effects	(106)
Pro forma net loss	\$ (7,731)
Reported basic and diluted net loss per share	\$ (2.56)
Pro forma basic and diluted net loss per share	\$ (2.60)
Number of shares used in basic and diluted per share calculations	2,975,116

Pursuant to the requirements of SFAS No. 123, for the year ended December 31, 2005 the Company estimated the fair value of its stock options by applying the minimum value method, which does not consider expected volatility of the underlying stock, using the following assumptions, and for the years ended December 31, 2007 and 2006, the Company determined the fair value of stock options



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 13. Stock-Based Compensation (Continued)

using the Black-Scholes option pricing model with the following assumptions for option grants, respectively:

	Year Ended December 31,		
	2007	2006	2005
Expected dividend yield	—	—	—
Risk-free rate	3.51%—4.82%	4.29—5.15%	4.22%
Expected option term (in years)	6.1	6.1	5
Volatility	59%	75%	—

For the year ended December 31, 2007, expected volatility is based on review of historical volatilities for similar public companies as adjusted to anticipate increased expected volatility associated with a limited trading history. Management believes that the historical volatility of the Company's stock price does not best represent the expected volatility of the stock price. Management intends to continue to consistently use the same group of publicly traded peer companies to determine volatility in the future until such time that sufficient information regarding the volatility of our share price becomes available unless the selected companies become unsuitable for this purpose.

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

For the year ended December 31, 2007, the expected term of the options granted was determined using the "simplified" method for "plain vanilla" options as permitted by Staff Accounting Bulletin No. 107. For stock options that are not considered "plain vanilla" and, as such, do not qualify for the simplified method, for example stock options with an exercise price below the related fair value of common stock on the date of grant, the Company's estimate of expected term was based upon review of the expected terms of publicly traded peer companies with stock options that have similar characteristics.

The stock price volatility and expected terms utilized in the calculation involve management's best estimates at that time, both of which impact the fair value of the option calculated under the Black-Scholes methodology and, ultimately, the expense that will be recognized over the life of the option. SFAS 123(R) also 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, its growing employee base, actual forfeitures for the year, and forfeiture rates used by peer companies. The Company will continue to evaluate its forfeiture rate as compared to the actual number of forfeitures in future periods to determine if adjustments to compensation expense may be required.

#### Expense Information for Non-employee Stock Option Awards

During the years ended December 2007, 2006, and 2005, the Company granted stock options to purchase 15,000, 51,080, and 59,558 shares of common stock, respectively, to nonemployees. The compensation expense related to these options is to be recognized over a period of four years. The 2007, 2006 and 2005 grants vest quarterly and such vesting is contingent upon future services provided by the consultants to the Company. Relating to these options, the Company recorded stock based

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 13. Stock-Based Compensation (Continued)

compensation expense of \$505, \$996, and \$27 during the years ended December 2007, 2006 and 2005, respectively. Options remaining unvested for nonemployees are subject to remeasurement each reporting period prior to vesting in full. Since the fair market value of the options issued to nonemployees is subject to change in the future, the compensation expense recognized in each year may not be indicative of future compensation charges. The Company's policy is to issue new shares upon the exercise of stock options.

The fair value of each option granted to non-employees was estimated using the Black-Scholes option pricing model with the following assumptions:

	Year		
	2007	2006	2005
Dividend yield	—	—	—
Volatility	59%	75%	75—100%
Risk-free interest rate	4.04%—5.03%	4.64—5.15%	3.94—4.50%
Option term	10 years	10 years	10 years

## 14. Income Taxes

There is no provision for income taxes because the Company has incurred operating losses since inception. 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 asset at December 31, 2007, 2006 and 2005 are as follows:

	Year		
	2007	2006	2005
Net operating loss carryforward	\$ 12,924	\$ 9,784	\$ 9,905
Capitalization of research and development expenses	8,224	6,178	4,671
Credit carryforwards	3,260	2,429	1,736
Other temporary differences	14,758	9,148	4,802
Total deferred tax assets	39,166	27,539	21,114
Valuation allowance	(39,166)	(27,539)	(21,114)
Net deferred tax asset	\$ —	\$ —	\$ —

In July, 2006 the FASB issued Financial Accounting Standards Interpretation No. 48, *Accounting for Uncertainty in Income Taxes* ("FIN 48"). FIN 48 clarifies the accounting for uncertainty in income taxes recognized in an enterprise's financial statements in accordance with Statement of Accounting Standards No. 109, *Accounting for Income Taxes*. FIN 48 prescribes a threshold for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. FIN 48 also provides guidance on derecognition, classification, interest and penalties, accounting in interim periods, disclosures and transitions. The Company adopted FIN 48 on January 1, 2007 with no effect on financial position. In addition, the Company has no amounts recorded for any unrecognized tax benefits as of January 1, 2007 or December 31, 2007.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**14. Income Taxes (Continued)**

The tax years 2004 through 2007 remain open to examination by major taxing jurisdictions to which the Company is subject, which are primarily in the US.

The Company's policy is to record estimated interest and penalties related to uncertain tax positions in income tax expense. As of January 1, 2007, and December 31, 2007, the Company had no accrued interest or penalties recorded related to uncertain tax positions.

At December 31, 2007 the Company had net operating loss carryforwards for federal and state income tax purposes of \$33,620 and \$23,822, respectively. The Company's federal and state net operating loss carryforwards will begin to expire in 2008 and 2007, respectively. The Company also had available research and development credits for federal and state income tax purposes of \$2,082 and \$1,662 respectively. The federal and state research and development credits will begin to expire in 2012 and 2015, respectively. As of December 31, 2007 the Company also had available investment tax credits for state income tax purposes of \$124 which began to expire in 2007. 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 Net Operating Loss, or NOL, and Research & Development, or R&D, credit carryforwards may be subject to a substantial annual limitation due to ownership change limitations that have occurred previously or that could occur in the future as provided by Section 382 and 383 of the Internal Revenue Code of 1986, as well as similar state provisions. These ownership changes may limit the amount of NOL and R&D credit carryforwards that can be utilized annually to offset future taxable income and tax, respectively. In general, an ownership change, as defined by Section 382, results from transactions increasing the ownership of certain shareholders or public groups in the stock of a corporation by more than 50 percentage points over a three year period. Since the Company's formation, the Company has raised capital through the issuance of capital stock which, combined with the purchasing shareholders' subsequent disposition of those shares, may have resulted in a change of control, as defined by Section 382, or could result in a change of control in the future upon subsequent disposition. The Company has not currently completed a study to assess whether there have been multiple changes of control since the Company's formation due to the significant complexity and cost associated with such study. If the Company has experienced a change in control at any time since the Company's formation, utilization of the Company's NOL or R&D credit carryforwards would be subject to an annual limitation under Section 382 and 383. Any limitation may result in expiration of a portion of the NOL or R&D credit carryforwards before utilization. Until a study is completed and any limitation known, no amounts are being presented as uncertain tax positions under FIN 48.

**15. Employee Benefits**

The Company maintains a 401(k) savings plan in which substantially all of its permanent employees are eligible to participate. Participants may contribute 100% of their annual compensation to the plan, subject to eligibility requirements and IRS limits. In 2007 the Company began matching, in common stock, up to 4.5% of a participant's total compensation. The Company issued 4,866 shares of common stock in 2007 pursuant to this plan. In addition \$155 was accrued for 401(k) matching at

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 15. Employee Benefits (Continued)

December 31, 2007. In 2006 and 2005 the Company did not make any contributions. Company contributions are fully vested upon grant.

## 16. Summary of Quarterly Financial Data (unaudited)

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

	2007 Quarter Ended			
	March 31,	June 30,	September 30,	December 31,
Total revenues	\$ 429	\$ 187	\$ 180	\$ 887
Loss from operations	(6,226)	(9,190)	(9,782)	(8,618)
Net Loss	(4,688)	(7,666)	(8,298)	(7,223)
Basic and diluted net loss per share	\$ (0.22)	\$ (0.35)	\$ (0.37)	\$ (0.33)

	2006 Quarter Ended			
	March 31,	June 30,	September 30,	December 31,
Total revenues	\$ 3,082(1)	\$ 728	\$ 423	\$ 357
Loss from operations	(457)	(4,218)	(4,450)	(8,399)
Net Loss	(325)	(4,010)	(4,230)	(7,497)
Basic and diluted net loss per share	\$ (0.11)	\$ (1.34)	\$ (1.41)	\$ (0.59)

(1) The Company recognized \$2,500 in previously deferred revenue related to the cancellation of joint development agreement with BP. (See note 4)

## Exhibit Index

Exhibit Number	Description
3.1(1)	Amended and Restated Certificate of Incorporation of the Registrant
3.3(1)	Amended and Restated By-laws of the Registrant
4.1(1)	Specimen Stock Certificate for shares of the Registrant's Common Stock
4.2(1)	Form of Common Stock Purchase Warrant issued in each of the Series I Financing, the Series J Financing and the Series 04 financing
10.1†(1)	1995 Stock Plan
10.1.1†(1)	1995 Stock Plan, Form of Incentive Stock Option Agreement
10.1.2†(1)	1995 Stock Plan, Form of Non-Qualified Stock Option Agreement
10.2†(1)	2005 Stock Plan
10.2.1†(1)	2005 Stock Plan, Form of Incentive Stock Option Agreement
10.2.2†(1)	2005 Stock Plan, Form of Non-Qualified Stock Option Agreement
10.3†(1)	2006 Stock Option and Incentive Plan
10.3.1†(1)	2006 Stock Option and Incentive Plan, Form of Incentive Stock Option Agreement
10.3.2†(1)	2006 Stock Option and Incentive Plan, Form of Non-Qualified Stock Option Agreement
10.3.3†(1)	2006 Stock Option and Incentive Plan, Form of Director Non-Qualified Stock Option Agreement
10.4#(1)	License Agreement between the Registrant and Massachusetts Institute of Technology dated July 15, 1993, as amended
10.5#(1)	Commercial Alliance Agreement by and among the Registrant, ADM/Metabolix Sales Company, LLC and ADM Polymer Corporation dated July 14, 2006
10.6#(1)	Operating Agreement of ADM/Metabolix Sales Company, LLC by and between the Registrant and ADM Polymer Corporation dated July 14, 2006
10.7(1)	Letter Agreement by and between the Registrant and Archer Daniels Midland Company dated November 3, 2004
10.8#(1)	Technology Alliance and Option Agreement by and between the Registrant and ADM Polymer Corporation dated as of November 4, 2004
10.9#(1)	First Amendment to Technology Alliance and Option Agreement by and between the Registrant and ADM Polymer Corporation dated as of September 8, 2005
10.10*	Employment Agreement between the Registrant and Richard P. Eno dated February 20, 2008
10.11†(1)	Employment Agreement between the Registrant and Oliver P. Peoples dated July 20, 2006
10.12†(1)	Amended and Restated Employment Agreement between the Registrant and Johan van Walsem dated September 22, 2006
10.13†(1)	Amended and Restated Employment Agreement between the Registrant and Robert C. Findlen dated September 22, 2006
10.14†(1)	Employment Agreement between the Registrant and Brian F. Igoe dated August 29, 2006

10.15†(1)	Form of Employee Noncompetition, Nondisclosure and Inventions Agreement with Oliver P. Peoples and Johan van Walsem
10.16†(1)	Form of Noncompetition, Nondisclosure and Inventions Agreement with Robert C. Findlen and Brian F. Igoe
10.17†(4)	Employment Agreement between the Registrant and Jay Kouba dated June 7, 2007
10.18†(5)	Separation Agreement between the Registrant and James J. Barber dated May 3, 2007
10.19†(1)	Form of Indemnification Agreement between the Registrant and its Directors and Officers
10.20(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
10.21(3)	Lease between Fortune Wakefield, LLC ("Landlord") and Metabolix, Inc. dated March 30, 2007
10.22(1)	Fifth Amended and Restated Stockholders Agreement by and among the Registrant and certain of its stockholders dated January 19, 2006
10.23(1)	Amendment No. 1 to Fifth Amended and Restated Stockholders Agreement by and among the Registrant and certain of its stockholders dated July 12, 2006
10.24(1)	Stock Purchase Agreement between the Registrant and Archer Daniels Midland Company dated July 12, 2006
10.25#(1)	License Agreement between the Registrant and Tepha, Inc. dated as of October 1, 1999
10.26#(1)	License Agreement between the Registrant and Tepha, Inc. dated as of September 9, 2003
10.27(6)*	Exclusive License Agreement between the Registrant and Abbott Laboratories dated November 12, 2007
10.28†*	Form of Employee Noncompetition, Confidentiality and Inventions Agreement with Richard P. Eno
21.1(2)	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
32.1*	Certification Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

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† 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.

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

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- (2) Incorporated by reference herein to the exhibits to the Company's 2006 Annual Report on Form 10-K (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 March 31, 2007 (File No. 001-33133)
- (4) Incorporated by reference herein to the exhibits to the Company's Report on Form 8-K/A filed June 19, 2007 (File No. 001-33133)
- (5) Incorporated by reference herein to the exhibits to the Company's Report on Form 8-K/A filed May 22, 2007 (File No. 001-33133)
- (6) Confidential treatment has been requested for certain portions of this document. Such provisions have been filed separately with the Commission.

\* Filed herewith

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February 20, 2008

Richard P. Eno  
14 Cranston Road  
Winchester, MA 01890

Re: Employment Agreement

Dear Richard:

This letter is to confirm our understanding with respect to your employment by Metabolix, Inc. (the "Company"). The terms and conditions agreed to in this letter are hereinafter referred to as the "Agreement". In consideration of the mutual promises and covenants contained in this Agreement, and for other good and valuable consideration, the receipt and sufficiency of which are hereby mutually acknowledged, we have agreed as follows:

1. Employment.

(a) General. The Company will employ you, and you will be employed by the Company, as President and Chief Executive Officer of the Company, reporting to the Company's Board of Directors (the "Board"), and you shall have the responsibilities, duty and authority commensurate with that position. You will also perform such other and/or different services for the Company as may be assigned to you from time to time. You agree that if your employment hereunder ends for any reason, you will tender your resignation to the Company of all offices with the Company as of the date of your termination.

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

2. Term. The Company hereby agrees to employ you, and you hereby accept employment with the Company, upon the terms set forth in this Agreement, for the period commencing as of March 17, 2008 (the "Commencement Date") and ending on the third

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tel: 617 583 1700 | fax: 617 583 1767 | www.metabolix.com

anniversary of the Commencement Date (such period is the "Agreement Term"). In the event the Company wishes to renew this Agreement, the Company will provide written notice to you of such desire at least 30 days before the expiration of the Agreement Term.

3. Compensation.

(a) Base Salary. While you are employed hereunder, the Company will pay you a base salary at the annual rate of no less than \$25,000 per month (annualized at \$300,000.00) (the "Base Salary"). The Company will deduct from each monthly salary payment all amounts required to be deducted or withheld under applicable law or under any employee benefit plan in which you participate.

(b) Bonus Opportunity. You will be eligible to receive a cash bonus in an amount of up to 150% of the Base Salary, based upon the Board's good faith assessment of your achievement of individual goals, and of the Company's achievement of its goals. Individual and Company goals will be established, and modified, in good faith by you and the Board. The Board expects that the target bonus opportunity will be in the range of 70% of your Base Salary if your performance fully meets those goals. To the extent the Board awards you a cash bonus, the bonus, if payable, shall be calculated and paid no later than two and a half months following the later of the close of the calendar or of the Company fiscal year to which such bonus relates. For your first year of employment, and any other partial year of employment, your cash bonus will be awarded on a pro rata basis.

(c) Equity Compensation.

(i) At the first regularly scheduled meeting of the Board's Compensation Committee, but no later than April 4, 2008, the Company shall grant you a stock option under the Metabolix, Inc. 2006 Stock Option and Incentive Plan, as amended February 22, 2007, and restated (the "2006 Stock Plan"), to purchase 100,000 shares of common stock of the Company (the "Initial Option") at an exercise price equal to the Fair Market Value (as defined in the 2006 Stock Plan) of the Company's common stock on the date of such grant. Provided you are employed by the Company on the vesting date, the Initial Option shall vest as to 6,250 of the shares three months after the grant date and on the last day of each three (3) month period following the first vesting date in equal installments of 6,250 until the Initial Option fully vests. Except as provided herein, the Initial Option

will be subject to the terms and conditions of the 2006 Stock Plan and the customary terms and conditions of the Company's standard form of stock option agreement.

(ii) Provided you remain employed with the Company, on the six-month anniversary of the Commencement Date, the Company shall grant you an Option under the Company's 2006 Stock Plan to purchase 50,000 shares of common stock of the Company (the "Six Month Option") at an exercise price equal to the Fair Market Value

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of the Company's common stock on the date of such grant. Provided you are employed by the Company on the vesting date, the Six Month Option shall vest as to 3,125 of the shares three (3) months following the grant date and on the last day of each three (3) month period following the first vesting date in equal installments of 3,125 until the Six Month Option fully vests. Except as provided herein, the Six Month Option will be subject to the terms and conditions of the 2006 Stock Plan and the customary terms and conditions of the Company's standard form of stock option agreement.

(iii) Provided you are employed with the Company on or after the first anniversary of the Commencement Date, and provided the Compensation Committee determines that you have met the performance goals established for you for the calendar year 2008, the Company shall grant you an Option under the Company's 2006 Stock Plan to purchase 50,000 shares of common stock of the Company (the "Bonus Option") at an exercise price equal to the Fair Market Value of the Company's common stock on the date of such grant. Provided you are employed by the Company on the vesting date, the Bonus Option shall vest as to 3,125 of the shares three (3) months following the grant date and on the last day of each three (3) month period following the first vesting date in equal installments of 3,125 until the Bonus Option fully vests. Except as provided herein, the Bonus Option will be subject to the terms and conditions of the 2006 Stock Plan and the customary terms and conditions of the Company's standard form of stock option agreement.

(iv) To the extent allowed pursuant to Section 422 of the Internal Revenue Code of 1986, as amended (the "Code"), each option referred to in subparagraphs (i) through (iii) hereof shall be deemed to be an incentive stock option.

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

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

(f) Legal Fees. The Company shall reimburse your reasonable legal fees in connection with this Agreement, upon the presentation of documentation supporting same, in an amount up to \$5,000.

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(g) Reimbursement of Certain Expenses. You shall be reimbursed for such reasonable and necessary business expenses incurred by you while you are employed by the Company, which are directly related to the furtherance of the Company's business. You must submit any request for reimbursement no later than ninety (90) days following the date that such business expense is incurred in accordance with the Company's reimbursement policy regarding same and business expenses must be substantiated by appropriate receipts and documentation. If a business expense reimbursement is not exempt from Section 409A of the Code, any reimbursement in one calendar year shall not affect the amount that may be reimbursed in any other calendar year and a reimbursement (or right thereto) may not be exchanged or liquidated for another benefit or payment. Any business expense reimbursements subject to Section 409A of the Code shall be made no later than the end of the calendar year following the calendar year in which you incur such business expense.

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

(a) Termination of the Agreement Term. The Agreement shall terminate, upon no less than thirty days prior written notice, at the expiration of the Agreement Term as set forth in Section 2.

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

(i) Your conviction of a felony; or

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

(iii) Your willful and continued failure to perform your duties hereunder (other than such failure resulting from your incapacity due to Disability, as defined herein) within 10 business days after the Company delivers a written demand for performance to you that specifically identifies the actions to be performed.

(c) Termination by the Company without Cause or by You for Good Reason. This Agreement shall terminate at the election of the Company without Cause at any time upon 30 days prior written notice by the Company to you, or by you for Good Reason (as defined herein).

(d) Death or Disability. The Agreement shall terminate upon your death or disability. If you shall be disabled so as to be unable to perform the essential functions of your position under this Agreement with or without reasonable

accommodation, the Board may remove you from any responsibilities and/or reassign you to another position with the Company during the period of such disability, and such reassignment shall not trigger a Good Reason termination as provided herein. Notwithstanding any such removal or reassignment, you shall continue to receive your Base Salary (less any disability pay or sick pay benefits to which you may be entitled under the Company's policies) and benefits under this Agreement (except to the extent that you may be ineligible for one or more such benefits under applicable plan terms) for a period of three months, and your employment may be terminated by the Company at any time thereafter. Nothing in this Section 4(b) shall be construed to waive your rights, if any, under existing law including, without limitation, the Family and Medical Leave Act of 1993, 29 U.S.C. §2601 *et seq.* and the Americans with Disabilities Act, 42 U.S.C. §12101 *et seq.*

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

(e) Termination by You. You may terminate this Agreement at your election upon not less than 30 days prior written notice to the Company.

(f) Definition of Good Reason. As used in this Agreement, "Good Reason" means if the Company, without your written consent, fails to cure any one or more of the event or circumstance listed below within 10 business days after receiving notice from you:

- (i) the assignment to you of duties materially inconsistent with this Agreement or a material diminution in title or authority;
- (ii) any failure by the Company to pay you the compensation and benefits to which you are entitled in any material way; or
- (iii) the requirement that you relocate to a location more than 50 miles outside of Cambridge, Massachusetts.

5. Effect of Termination.

(a) In the event (i) you are terminated for Cause; (ii) you are terminated for death or Disability; or (iii) you voluntarily resign (other than for Good Reason), unless otherwise specifically provided herein, you, or your estate, shall be eligible only to receive (i) the portion of your Base Salary as has accrued prior to the effectiveness of such termination and has not yet been paid, (ii) an amount equal to the value of your accrued unused vacation days, and (iii) reimbursement for expenses properly incurred by you on behalf of the Company prior to such termination if such expenses are properly documented

in accordance with Company policy and practice and submitted for reimbursement within 30 days of the termination date (collectively, the "Accrued Obligations"). Such amounts will be paid promptly after termination in accordance with applicable law.

(b) In the event (i) you are terminated without Cause; or (ii) you resign for Good Reason, in addition to the Accrued Obligations, and contingent on your executing a complete release of claims against the Company, and you do not revoke the release (a fully effective release is hereafter, the "Release"), you shall be entitled, in addition to the Accrued Obligations, to receive continuation of your Base Salary in effect at the time of termination for the period of twelve (12) months following your delivery of the Release. To the extent required by Section 409A of the Code, the first installment of such Base Salary in the amount of six (6) months' Base Salary shall be payable on the first business day following the six (6) month anniversary of the effective date of termination, and the remainder shall be payable in accordance with the Company's regular payroll procedures thereafter. If Section 409A of the Code is not applicable at the time of such termination, such Base Salary continuation shall commence immediately after the date of the Release. In addition to the foregoing, you shall be entitled to receive payment of COBRA premiums to maintain medical and dental benefits, if any, in effect at the time of termination for the earlier of (x) 12 months following the termination and (y) the date you become insured under a medical insurance plan providing similar benefits to that of the Company plan.

(c) In the event the Agreement Term expires and you are terminated without Cause or you resign for Good Reason (as defined in paragraph 4(f) above, and determined as if this Agreement were still in effect) at or within six months of the expiration of the Agreement Term, in addition to the Accrued Obligations, you shall be entitled to the same benefits provided in Section 5(b) herein, upon your execution of the Release, except that your Base Salary and COBRA premiums shall be paid for a period of six (6) months following the date of your termination. The benefits in this subsection are subject to the same limitations of 409A of the Code as set forth in Section 5(b). If your employment continues after the expiration of this Agreement, this Section 5 (c), Sections 4(b) and (f), and Sections 5(d) through (g) all shall survive the termination of this Agreement for a period of six (6) months, and Sections 3 (c), (d), (e) and (g) and Section 9(e)(ii) shall survive the expiration of this Agreement for so long as you remain an employee of the Company.

(d) Additional Benefits Upon Termination in Connection With a Change of Control. In the event that your employment is terminated by the Company without Cause or by you for Good Reason (each, as defined herein) within 12 months immediately following or 6 months immediately prior to a Change of Control, then, in addition to the Accrued Obligations and the benefits described in Section 5(b), you shall be entitled to receive full vesting of all unvested equity granted to you under the 2006 Stock Plan or any authorized successor stock plan provided that the conditions to vesting other than the passage of time have been satisfied. To the extent the Company grants you any other equity or deferred compensation benefits, including, for example, restricted stock units, phantom stock or

participation in a deferred compensation program, such additional benefits shall similarly accelerate and vest upon a Change in Control as provided herein.

(e) The payments, benefits and vesting, if any, to which you are entitled under Section 5 (and all other payments, benefits and vesting to which you may be entitled) shall be provided without regard to whether the deductibility of such payments, benefits and vesting would be limited or precluded by Section 280G of the Code (“Section 280G”) and without regard to whether such payments (or any other payment, benefits and vesting) would subject you to the federal excise tax levied on certain “excess parachute payments” under Section 4999 of the Code (the “Excise Tax”). If any portion of the payments, benefits and vesting to or for your benefit (including, but not limited to, payments, benefits and vesting under this Agreement but determined without regard to this paragraph) constitutes an “excess parachute payment” within the meaning of Section 280G (the aggregate of such payments being hereinafter referred to as the “Excess Parachute Payments”), the Company shall promptly pay to you an additional amount (the “gross-up payment”) that after reduction for all taxes (including but not limited to the Excise Tax) with respect to such gross-up payment equals the Excise Tax with respect to the Excess Parachute Payments; *provided*, that to the extent any gross-up payment would be considered “deferred compensation” for purposes of Section 409A of the Code, the manner and time of payment, and the provisions of this Section 5(e), shall be adjusted to the extent necessary (but only to the extent necessary) to comply with the requirements of Section 409A with respect to such payment so that the payment does not give rise to the interest or additional tax amounts described at Section 409A(a)(1)(B) or Section 409A(b)(4) of the Code (the “Section 409A penalties”); *and further provided*, that if, notwithstanding the immediately preceding proviso, the gross-up payment cannot be made to conform to the requirements of Section 409A of the Code, the amount of the gross-up payment shall be determined without regard to any gross-up for the Section 409A penalties. The determination as to whether your payments, benefits and vesting include Excess Parachute Payments and, if so, the amount of such, the amount of any Excise Tax owed with respect thereto, and the amount of any gross-up payment shall be made at the Company’s expense by such certified public accounting firm as the Board may designate prior to a Change of Control (the “accounting firm”). Notwithstanding the foregoing, if the Internal Revenue Service shall assert an Excise Tax liability that is higher than the Excise Tax (if any) determined by the accounting firm, the Company shall promptly augment the gross-up payment to address such higher Excise Tax liability. Notwithstanding anything in this section to the contrary, the maximum amount of the gross-up payment, including any gross-up for Section 409A penalties, shall not exceed \$500,000.

(f) “Change of Control”. As used herein, a “Change of Control” shall occur or be deemed to have occurred only upon any one or more of the following events:

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(i) 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

(ii) persons who, as of the Effective Date, constituted 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 whose election was 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

(iii) 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

(iv) 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.

(g) Separation from Service. Notwithstanding anything set forth in Sections 4 and 5 of this Agreement, a termination of employment shall be deemed not to have occurred until such time as you incur a “separation from service” with the Company in accordance with Section 409a(a)(2)(A) (v) of the Code and the applicable provisions of Treasury Regulation Section 1.409A-3.

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6. Noncompetition, Confidentiality and Inventions Obligations. You agree to simultaneously execute the Company’s Employee Noncompetition, Confidentiality and Inventions Agreement with the execution of this Agreement.

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

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

9. General.

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

(b) Entire Agreement. This Agreement, together with any Stock Option Agreements executed by you and the Company (either prior to or in conjunction with this Agreement) and the Employee Noncompetition, Confidentiality and Inventions Agreement embody the entire agreement and understanding between the parties hereto with respect to the subject matter hereof and supersedes all prior oral or written agreements and understandings relating to the subject matter hereof. No statement, representation, warranty, covenant or agreement of any kind not expressly set forth in this Agreement will affect, or be used to interpret, change or restrict, the express terms and provisions of this Agreement.

(c) Modifications and Amendments. The terms and provisions of this Agreement may be modified or amended only by written agreement executed by the parties hereto.

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

(e) Assignment. (i) The Company may assign its rights and obligations hereunder to any person or entity that succeeds to all or substantially all of the Company's business or that aspect of the Company's business in which you are principally involved or to any Company Affiliate. (ii) 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; provided, however, in the event of your death, your rights, compensation and benefits under this Agreement shall inure to the benefit of your estate, such that, for example, stock issuable to you, and awards and payments payable to you, shall be issued and paid to your estate.

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

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

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

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

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

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

(k) Taxes. All payments required to be made by the Company to you under this Agreement shall be subject to the withholding of such amounts for taxes and other payroll deductions as the Company may reasonably determine it should withhold pursuant to any applicable law or regulation. To the extent applicable, it is intended that this Agreement 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.

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

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/ Anthony J. Sinskey  
Name: Anthony J. Sinskey  
Title: Chairman of the Compensation Committee

**Accepted and Approved:**

/s/ Richard P. Eno  
Richard P. Eno

2/20/08  
Date

WHENEVER CONFIDENTIAL INFORMATION IS OMITTED HEREIN (SUCH OMISSIONS ARE DENOTED BY AN ASTERISK\*), SUCH CONFIDENTIAL INFORMATION HAS BEEN SUBMITTED SEPARATELY TO THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO A REQUEST FOR CONFIDENTIAL TREATMENT.

## EXCLUSIVE LICENSE AGREEMENT

This Agreement, effective November 12, 2007 (the "Effective Date") is between Metabolix, Inc. ("Licensor"), having an office and principal place of business at 21 Erie Street, Cambridge, MA 02139, and Abbott Laboratories ("Licensee"), an Illinois corporation having an office and principal place of business at 100 Abbott Park Road, Abbott Park, Illinois 60064-6400.

### WITNESSETH THAT:

**WHEREAS**, Licensor is the owner of certain Patent Rights (as later defined herein) and has the right to grant licenses under said Patent Rights.

**WHEREAS**, Licensee is a diversified health care company that discovers, develops, manufactures and markets pharmaceutical products, nutritional products and medical products.

**WHEREAS**, Licensee wishes to obtain and Licensor is willing to grant an exclusive license to the Patent Rights upon the terms and subject to the conditions set forth herein.

**NOW, THEREFORE**, in consideration of the premises and the mutual covenants and agreements herein contained, Licensor and Licensee agree as follows:

### ARTICLE I DEFINITIONS

As used in this Agreement, each term listed below shall have the meaning that is given after it:

"Abbott Diagnostic Product" means any Abbott Product that is a Diagnostic Product.

"Abbott Product" means any Licensed Product, that was discovered, developed or commercialized by Abbott or its Affiliates.

"Abbott Therapeutic Product" means any Abbott Product that is a Therapeutic Product.

"Affiliate" means a corporation or any other entity that directly, or indirectly through one or more intermediaries, controls, is controlled, or is under common control with the designated Party. As used herein, the term of control means possession of power to direct or cause the direction of the management and policies of a corporation or other entity whether through the ownership of voting securities, by contract or otherwise; provided, however, that for the purposes of this Agreement, \* and its subsidiaries, which comprises \*, shall not be considered an "Affiliate" of Licensee unless and until Licensee has elected to include \*.

\* CONFIDENTIAL TREATMENT REQUESTED

as an Affiliate hereunder for the express purposes of developing and commercializing an Abbott Product and provides Licensor written notice of the same.

"Commercially Reasonable Efforts" means the level of effort commonly used in the research-based pharmaceutical industry to conduct research, development, and licensing activities for a technology that is at a similar stage as the technology described in the Patent Rights and that is of comparable market potential, profit potential or strategic value, taking into account relevant considerations, and which may include, establishment of a proof of concept, issues of safety (including adverse events) and efficacy, product profile, the proprietary position, the then-current competitive environment for such technology, the then-current market penetration, the return on investment potential of such product, the regulatory environment and status of the product, and other relevant scientific, technical and commercial factors, as the case may be, and as measured by the facts and circumstances at the time such efforts are due.

"Control" or "Controlled" means, with respect to a particular item of information or intellectual property right, (i) that the Party owns, or holds a license to, and has the ability to grant to the other Party access and/or the licenses to such item, provided for herein, without violating the terms of any agreement or other arrangement with any third party.

"Cross-License" means a license agreement with a Sublicensee in which Licensee receives non-cash receipts in the form of license rights to technology or intellectual or tangible property.

"Diagnostic Product" means a Licensed Product that (i) identifies, images, or otherwise detects a disease, disorder, medical state or condition in animals (including human) or having a predisposition to a particular disease, and/or (ii) defines the prognosis or monitors the progress of any disease disorder, medical state or condition in animals (including human), including subsequent to medical or pharmaceutical intervention and/or (iii) predicts the suitability of using a specific prophylactic or therapeutic product to treat a disease, disorder, medical state or condition in animals (including human) with specific patients ("theranostic").

"FDA" means the United States Food and Drug Administration or any successor agency or authority thereto having substantially the same functions.

“FDCA” means the United States Federal Food, Drug, and Cosmetic Act, as amended from time to time, together with any rules, regulations, and requirements promulgated thereunder.

“First Commercial Sale” means, with respect to any Licensed Product, the first bona fide commercial sale of such Licensed Product by Licensee or its Sublicensees to any unaffiliated third party who is not a Sublicensee in any country in the Territory after all applicable marketing and pricing approvals (if any) have been granted by the Regulatory Agency, provided such bona fide sale would, absent the license granted hereunder, infringe one or more Valid Claims.

“\* Patents” means any issued patent, that is (i) \* directed to the \* disclosed in the \* and (ii) conceived or discovered during the period beginning on \* and through \* by an employee or agent of \*, its Affiliates or \* by use of the \*.

\* CONFIDENTIAL TREATMENT REQUESTED

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“Licensed Product” means any product or process or part thereof, the manufacture, sale, offer to sell, use, or importation of which, absent the license granted hereunder, would infringe one or more Valid Claims.

“NDA” means a new drug application as defined in the FDCA or any successor applications or procedures filed with the FDA.

“Net Sales” means, on Licensed Product-by-Licensed Product basis, the gross amount invoiced by Licensee, its Affiliates and its Sublicensees to independent, unrelated third parties in bona fide arms’ length transactions for the sale of Licensed Products, less deductions for:

- (i) trade, quantity, or cash discounts, sales returns and allowances (including charge backs, and uncollectible accounts);
- (ii) amounts repaid or credited by reason of rejection, defect or return, or because of price reductions, billing errors; rebates and similar payments made with respect to sales paid for or reimbursed by any governmental or regulatory authority such as, by way of illustration and not in limitation of the Parties’ rights hereunder, federal or state Medicaid, Medicare or similar state program or equivalent foreign governmental program;
- (iii) administrative and other fees and reimbursements and similar payments directly related to the sale or delivery of Licensed Product paid to wholesalers and other distributors, buying groups, pharmacy benefit management organizations, health care insurance carriers and other institutions;
- (iv) the cost of the Delivery System, where for purposes of this Net Sales definition, a “Delivery System” means any delivery system comprising equipment, instrumentation, one or more devices or other components designed to assist in the administration of a Licensed Product; for the purpose of example, Delivery Systems would include but not be limited to: syringes, needle-free delivery devices, inhalers, trans-dermal patches and any other similar equipment instrumentation, or devices;
- (v) any taxes or other governmental charges or import and excise duties levied on the production, sale, transportation, delivery or use of a Licensed Product which is paid by or on behalf of a Party;
- (vi) outbound transportation, importation, freight, postage, shipping, insurance and other handling costs;
- (vii) costs of collections; and
- (viii) with respect to Abbott Diagnostic Product(s) sold under a Reagent Agreement Plan, a lump sum deduction of \* percent (\*%) of the gross amount invoiced for such Abbott Diagnostic Product.

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For purposes of determining Net Sales, Licensed Product(s) shall be deemed to be sold when shipped and invoiced and a “sale” shall not include transfers or dispositions for charitable, promotional, pre-clinical, clinical, regulatory or governmental purposes.

For purposes of calculating Net Sales, sales between or among Licensee, its Affiliates or its Sublicensees shall be excluded from the computation of Net Sales, but sales by a Party, its Affiliates, or its Sublicensees to unrelated third parties shall be included in the computation of Net Sales.

In the event a Licensed Product is sold in combination with one or more other active ingredients, the gross amount invoiced for that Licensed Product shall be calculated by multiplying the gross amount invoiced for such combination by the fraction  $A/(A+B)$ , where “A” is the gross amount invoiced for the Licensed Product sold separately and “B” is the gross amount invoiced for the other active ingredient(s) sold separately. In the event that the other active ingredient(s) is not sold separately, then the gross amount invoiced for that Licensed Product shall be calculated by multiplying the gross amount invoiced for the combination by the fraction  $A/C$ , where “A” is the gross invoice amount for the Licensed Product, if sold separately, and “C” is the gross invoice amount for the Combination. In the event that a particular combination is not addressed by the foregoing, the Parties shall determine the allocation of the gross invoice amount between the Licensed Product and the other active ingredient(s) in good faith.

“Party or Parties” means Licensee and/or Licensor, depending on the context.



“Patent Rights” means all patents and patent applications, including but not limited to those listed in Exhibit B attached hereto, owned or Controlled by Licensor during the Term, filed \*, which patents and patent applications claim subject matter related to \*, and including:

(a) all additions, divisionals, continuations, continuation-in-part applications, and continued prosecution applications and substitutions of any of the preceding, and any letters patent and/or registrations (and their relevant international equivalents);

(b) all patents resulting from reissues, reexaminations, renewals, confirmations, registration, extensions (and their relevant international equivalents), and including any patent term extensions, or supplementary protection certificates that may be granted on any of the foregoing

“Pharmaceutical Field” means research, development, manufacture, and commercialization of products directed to the prevention, maintenance, treatment, diagnosis, prediction, detection, evaluation or characterization of any disease, disorder, medical state or condition in animals (including humans).

“Reagent Agreement Plan” means a plan for the sales of Abbott Diagnostic Product(s) to customers with whom instruments for use with reagents constituting Abbott Diagnostic Product(s) are placed on a reagent rental basis, (i.e. without a charge for such instruments separate from charges for such assays), or other successor or similar plan, such as instrument service costs, instrument depreciation, finance costs, disposables, and rental fees.

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“Regulatory Agency” means the United States Food and Drug Administration and the applicable regulatory agencies in other countries having responsibility for license of pharmaceutical products or Licensed Product(s).

“Reporting Period” means each calendar quarter during the Term.

“Non-Pharmaceutical Research Field” means internal, non-commercial, research outside the Pharmaceutical Field, at laboratory to pilot scale, and not for use in any process, intermediate, or final product for commercial sale or distribution. Non-Pharmaceutical Research Field excludes, without limitation, any use of “\*” Patents, as part of, or in any way in connection with, a product or service which is sold, offered for sale or licensed in the Territory.

“\_” has the meaning ascribed to it in Section 2.3.

“Sublicense Income” means any payments that Licensee or its Affiliates receives from a Sublicensee, that is not an Affiliate of Licensee, in connection with a sublicense granted pursuant to Section 2.2 hereof, which sublicense includes a grant of rights to the Patent Rights but which sublicense does not include a grant of rights to an Abbott Product. Payments under this definition include without limitation license fees, license maintenance fees, milestone payments, and royalties and the fair market value of any non-monetary consideration.

“Sublicensee” means any non-Affiliate sublicensee of the rights granted Licensee under Section 2.1.

“Term” means the term of this Agreement as set forth in section 11.1.

“Territory” means the entire world.

“Therapeutic Product” means a Licensed Product that prevents, maintains, treats and/or cures any disease, disorder, medical state or condition in animals (including humans).

“Valid Claim” means a claim of an issued and unexpired patent included within the Patent Rights whose enforceability has not been affected by one or more of any of the following: (1) permanent lapse, revocation, or abandonment and/or (2) holding of unenforceability or invalidity by a decision of a court or other appropriate body of competent jurisdiction, unappealable or unappealed within the time allowed for appeal; and/or (3) disclaimer or admission or declaration of invalidity or unenforceability through reissue or re-examination or opposition, nullity action or invalidation suit response or otherwise.

## ARTICLE II GRANT OF LICENSE AND RIGHT OF FIRST NEGOTIATION

2.1 License Grants. Subject to the terms of this Agreement, Licensor hereby grants to Licensee and its Affiliates for the Term an exclusive (even as to Licensor) royalty-bearing license, under the Patent Rights to research, develop, make, have made, use, sell, offer to sell, lease, and import/export Licensed Products in the Pharmaceutical Field in the Territory.

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2.2 Sublicenses. Licensee shall have the exclusive right (even as to Licensor) to grant sublicenses of its rights under Section 2.1. Licensee shall incorporate terms and conditions into its sublicense agreements sufficient to enable Licensee to comply with this Agreement and to ensure Sublicensee’s compliance with the terms of this Agreement.

2.3 \* Patents. \* hereby grants to \* a \* non-exclusive license, \* the right to grant sublicenses, to \* Patents solely for \* further grants to \* license to \* Patents, solely for use \*, upon terms and conditions to be negotiated in good faith by the parties (“\*\*”). \* may exercise each \* upon notice to \* within \* (\*) \* (“\* Election Period”) from the date upon which the applicable \* Patent issues. In the event that \* elects to exercise a \*, the Parties shall enter into good faith negotiations for a commercially reasonable sublicensing agreement for the specific field of interest, \*. The financial terms associated with such agreement

will include, to the extent usual and customary for the applicable field of use, a license fee, annual maintenance fees, milestones, royalties on net sales and a \* and the absolute values for such financial terms will be usual and customary for the scope of rights and field of use and, in the case of \* that are encompassed in such agreement. If the Parties, in good faith negotiations, are unable to reach agreement within ninety days (90) days after the date upon which \* exercised the \* ("Negotiation Period"), then neither Party shall be under any obligation to continue such negotiations; provided that if the Parties are unable to agree upon what constitutes commercially reasonable financial terms, then \* may submit the issue to Alternative Dispute Resolution under Section 12.1.

Notwithstanding anything to the contrary in this Agreement, \* understands and agrees that if \* or any of its Affiliates acquires, is acquired by, or merges or consolidates with a third party (each a "Change in Control"), the \* shall not apply to any patent that otherwise meets the definition of "\* Patent" if such patent was already owned or otherwise controlled by the other party to such Change in Control as of the effective date of said Change in Control, and is the subject of an agreement that would not allow \*, its Affiliates and/or said third party to agree to this provision. For example only and not to limit the generality of the foregoing, if \* acquires a third party that owns or is the licensee of a patent that meets the definition of "\* Patent", and on the effective date of the Change in Control, said third party had exclusively licensed its rights to said "\* Patent", then the patent that is the subject of such exclusive license is not available to \* under this Section 2.3.

### ARTICLE III ROYALTIES AND PAYMENT TERMS

#### 3.1 Consideration for Grant of Rights.

(a) License Issue Fee. Licensee shall pay to Licensor, within thirty (30) days of the Effective Date, a license issue fee of Five Hundred Thousand United States dollars (US\$500,000).

(b) Annual Maintenance Fee. Effective on the \* of the Effective Date and on each anniversary thereafter, Licensee shall pay Licensor an annual maintenance fee of \*

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United States Dollars (\$) (the "Maintenance Fee"). The Maintenance Fee shall be creditable, on an annual basis, against any amounts due under the provisions of Section 3.1(c), 3.1(d), 3.1(e) and 3.1(f) due to the Licensor by Licensee under this Agreement.

(c) Sublicense Fee — Related to Abbott Products. If Licensee grants a sublicense to a Sublicensee to an Abbott Product and such sublicense includes a grant of rights to the Patent Rights as required to make, have made and use an Abbott Product, then Licensee shall pay to Licensor as a pass through obligation the milestone and royalties related to such Abbott Product as stated in Section 3.1(e) and 3.1(f). No amounts shall be payable by Licensee to Licensor for such sublicense under the provisions of Section 3.1(d). All such payments under this Section 3.1(c) shall be made in conformity with the provisions of Section 3.2.

(d) Sublicense Fee — Other. Licensee shall pay to Licensor \* percent (\*%) of any Sublicense Income for each sublicense under Section 2.2, directed solely to the Patent Rights (without any license to an Abbott Product which is covered in Section 3.1(c) above). All such payments under this Section 3.1(d) shall be made in conformity with the provisions of Section 3.2.

(e) Milestones. Licensee, or Licensee on behalf of an Affiliate or a Sublicensee to an Abbott Product, shall pay to Licensor the following milestone payments, within 30 days of the achievement of the stated event:

- (i) \* United States Dollars (\$) upon the administration of the first dose for the first-in-man study, solely for the first Abbott Therapeutic Product to achieve this milestone. The milestone payment under this Section 3.1(e)(i) is a one-time payment, which is only payable for the first Abbott Therapeutic Product to achieve this milestone. Licensee shall not pay this milestone for any future Abbott Therapeutic Product's achievement of this milestone but will however pay the milestone payable under Section 3.1(e)(ii) for each Therapeutic Product that meets the milestone stated in 3.1(e)(ii).
- (ii) \* United States Dollars (\$) upon the First Commercial Sale for each Abbott Therapeutic Product after the first NDA approval for such product.

For clarity, the milestone under 3.1(e)(ii) is due on a one-time basis \* and additional milestones are not due for subsequent NDA approvals for new dosage forms or strengths, new indications or new label claims, or new packaging configurations or kits once a milestone has been paid for an Abbott Product encompassing such \*.

- (iii) \* United States Dollars (\$) upon First Commercial Sale for each Abbott Diagnostic Product.

For clarity, the milestone under 3.1(e)(iii) is due on a one-time basis \* and additional milestones are not due for subsequent First Commercial Sales for new

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label claims or new packaging configurations or kits once a milestone has been paid for an Abbott Product encompassing such \*.

(f) Royalties. Licensee, or Licensee on behalf of an Affiliate or a Sublicensee to an Abbott Product, shall pay Licensor, on an Abbott Product-by-Abbott Product basis, a royalty based on Annual Net Sales of such Abbott Product, as follows:

\*% of Net Sales of each Abbott Therapeutic Product

\*% of Net Sales of each Abbott Diagnostic Product or any other Abbott Product that is not an Abbott Therapeutic Product.

All such payments under this Section 3.1(e) shall be made in conformity with the provisions of Section 3.2.

(g) Sublicense — Cross-License. In the event that, under a Cross-License, Licensee receives non-cash receipts in the form of license rights to technology or intellectual or tangible property (for example but not to limit the generality of the foregoing, reagents, cell lines or genetic constructs) which may be necessary or useful in providing freedom to operate under the Patent Rights, such non-cash receipts shall not be deemed to be Sublicense Income under Section 3.1(d).

(h) No Duplicate Licensee Fees or Royalties. If the manufacture, use, lease, or sale of any Licensed Product is covered by more than one of the Patent Rights, multiple royalties shall not be due. In addition, except as per 3.1(c), no sublicense fees will be due for the sublicense of Abbott Products.

### 3.2 Payments.

(a) Method of Payment. All payments under this Agreement should be made payable to Licensor and sent to the address identified in Section 13.1.

(b) Payment Terms. All payments due under this Agreement shall be payable in United States dollars. Foreign currency amounts shall be converted into United States dollars at the rates used by Licensee for conversion of foreign currencies for purposes of calculating its publicly reported sales figures for that year. All payments due under this agreement under the provisions of Sections 3.1(b), 3.1(c), 3.1(d) and 3.1(f) shall be due to Licensor within ninety (90) days of the end of each Reporting Period.

(c) In the event the enforceability of one or more patents within the Patent Rights is under challenge or review in a court of law, or other appropriate body of competent jurisdiction (including the United States Patent Office), at the sole discretion of Licensee, payments due under this Agreement may be held in an interest-bearing escrow account to be chosen by the Licensee (Licensee's choice of the interest-bearing escrow account shall be subject to Licensor's approval, which approval shall not be unreasonably withheld), until such time as the patent challenge or review is finally resolved. If the Patent Rights are finally deemed enforceable by decision of a court or other appropriate body of competent jurisdiction, then payments held in

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escrow and interest thereon shall be due to Licensor within thirty (30) days of such the decision. If the Patent Rights are finally deemed unenforceable by decision of a court or other appropriate body of competent jurisdiction, then payments held in escrow and interest thereon shall be due to Licensee.

(d) Withholding Taxes. Where any sum due to be paid to a Party hereunder is subject to any withholding or similar tax, the Parties shall use their commercially reasonable efforts to do all such acts and things and to sign all such documents as will enable them to take advantage of any applicable double taxation agreement or treaty. In the event there is no applicable double taxation agreement or treaty, or if an applicable double taxation agreement or treaty reduces but does not eliminate such withholding or similar tax, the Party making such payment shall pay such withholding or similar tax to the appropriate government authority, deduct the amount paid from the amount due the other Party and secure and send to the other Party the best available evidence of such payment.

## ARTICLE IV REPORTS AND RECORDS

### 4.1 Frequency of Reports.

(a) Sublicense Agreement Reporting Requirements. Within thirty (30) days of the end of each Reporting Period during which a sublicense is entered into, Licensee shall report to Licensor (1) the date of the execution of any sublicense agreement and (2) the date of the First Commercial Sale of a Licensed Product that is the subject of the sublicense.

(b) After First Commercial Sale. After the First Commercial Sale of a Licensed Product or Licensee's first receipt of Sublicense Income, whichever occurs first, Licensee shall deliver to Licensor within forty-five (45) days of the end of each Reporting Period, a report containing information concerning the immediately preceding Reporting Period, as further described in Section 4.2.

4.2 Content of Reports and Payments. Each report delivered by Licensee to Licensor shall contain the following information for the immediately preceding Reporting Period:

(i) the total royalty payable on Net Sales in U.S. dollars, together with the exchange rates used for conversion;

(ii) the number of sublicenses entered into for the Patent Rights and Licensed Products and the amount payable to Licensor pertaining to such sublicenses.

If no amounts are due to Licensor for any Reporting Period, or no sublicenses were entered into, then no report is due from Licensee for such Reporting Period.

4.3 Records. Licensee shall maintain, and shall cause its Affiliates and Sublicensees to maintain, accurate accounting records for the calculation of royalties payable hereunder. Licensee shall retain such records for three (3) years following the end of the calendar year to which they pertain. Upon thirty (30) days advance written notice by Licensor and not more than

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once in any twelve (12) month period, Licensee shall make available upon reasonable advance notice during normal business hours such records for examination by independent certified public accountants appointed by Licensor and acceptable to Licensee, solely to the extent necessary to verify Licensee's calculations of amounts due under this Agreement.

Such examination shall be limited to a period of time no more than three (3) calendar years immediately preceding the request for examination. The report of any such examination shall be made simultaneously to Licensee and Licensor and shall simply report the amount, if any, by which Licensee has overpaid or underpaid: (i) royalties on a Licensed Product by Licensed Product basis and (ii) amounts payable for sublicensing income. The costs for such examination shall be borne by Licensor. Licensee shall promptly pay any underpayment and shall deduct from the next payment due to Licensor any overpayment. In the event that an audit performed under this Section reveals an underpayment in excess of \* percent (\*%), Licensee shall bear the full cost of such audit and shall remit any amounts due to Licensor within sixty (60) days of receiving notice thereof from Licensor.

4.4 Due Diligence Progress Reports. In addition to the reports required under Section 4.1, Licensee shall report to Licensor within thirty (30) days after the end of each of the first \* (\*) calendar years during the Term on the progress of Licensee's research and development and licensing activities in compliance with its due diligence obligations under Section 8.4. Such reports will be in summary format and will be solely directed to the \* disclosed in the Patent Rights. Such reports shall identify Licensed Products, if any, that Abbott has submitted a New Drug Application or Biological License Application to the FDA. Other information and activities relating to the discovery and development of Licensed Products are deemed to be confidential to Abbott and will not be disclosed. By way of example only, \* are confidential to Abbott and will not be disclosed.

#### ARTICLE V PATENT PROSECUTION

5.1 Responsibility for Patent Rights. Licensor shall be responsible for the maintenance of the Patent Rights, including all preparation, filing, prosecution, interferences, reissues, re-examinations, and oppositions related to said Patent Rights. Licensor shall instruct patent counsel authorized with maintaining the Patent Rights to consult with Licensee as to the prosecution and maintenance of such Patent Rights in sufficient time before any action is due to allow Licensee to provide comments and instructions thereon, which comments and instructions shall be reasonably adopted.

5.2 Payment of Expenses. Payment of all fees and costs, including attorney's fees, relating to the filing, prosecution and maintenance of the Patent Rights as of the Effective Date shall be the responsibility of Licensor, unless the option to prosecute and maintain patents is exercised by Licensee as per Section 5.3.

5.3 Option to Prosecute and Maintain Patents. Licensor shall give notice to Licensee of any desire to cease prosecution and/or maintenance of any patents included within the Patent Rights licensed to Licensee hereunder at least ninety (90) days prior to the date of lapse, revocation, surrender, invalidation or abandonment of such patents included within the Patent

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Rights. In such case, Licensor shall permit Licensee, at its sole discretion, to continue prosecution or maintenance at its own expense. If Licensee elects to continue prosecution or maintenance, Licensor shall execute such documents and perform such acts as may be reasonably necessary to effect an assignment of such patents included within the Patent Rights to Licensee in a timely manner to allow Licensee to continue such prosecution or maintenance. Any patents or patent applications so assigned shall no longer be considered patents included within the Patent Rights.

5.4 Patent Term Extensions and Supplementary Protection Certificates. Licensee shall have the right to pursue extensions of exclusivity beyond the full term expiry date of any Patent Rights, for example and without limitation, the extensions provided under United States Law, such as 35 U.S.C. §154, 35 U.S.C. §155, 35 U.S.C. §155A, 35 U.S.C. §156, and 21 U.S.C. §355a, and under Laws outside of the United States, such as a Supplementary Protection Certificate ("SPC") in European Patent Office ("EPO") member countries. An application for extension shall be brought under Licensee's control and expense. Licensor shall fully cooperate with Licensee in obtaining an extension of a Patent Rights' expiry date.

#### ARTICLE VI PATENT ENFORCEMENT

6.1 Notification of Action. Each Party agrees to provide written notice to the other Party promptly after becoming aware of any infringement of the Patent Rights or the institution by a third party of any proceeding for the purpose of revoking or holding unpatentable, invalid or unenforceable any patent within the Patent Rights. Such notice shall include copies of all documentary evidence in support of the infringement.

6.2 Right to Enforce and to Defend Patent Rights. Upon receipt of Notification of Action pursuant to Section 6.1, Licensee shall have the right, but not the obligation, to institute an action for such suspected infringement within the Pharmaceutical Field, or to defend against any such third party proceeding for revocation, or invalidity, under Licensee's own control and at its own expense and shall have the right to select counsel for any such action or proceeding. Neither Party shall enter into any settlement, consent judgment, or other voluntary final disposition of any action under this Section without the prior written consent of the other Party, which consent may not be unreasonably withheld or delayed. Such action by Licensee shall be brought under Licensee's own name or if required by law, jointly with Licensor. If Licensee does not initiate legal proceedings or take other actions (for example and

without limiting the generality of the foregoing, licensing discussions) regarding said infringement within one hundred twenty (120) days from the date of notice pursuant to Section 6.1, Licensor shall have the right to institute or defend any such actions at its own cost and expense. Further, Licensor retains the right to institute, defend and settle any such actions outside the Pharmaceutical Field. Each Party shall keep the other reasonably informed and cooperate with the other as to the prosecution and/or settlement of any action, in or outside the Pharmaceutical Field.

6.3 Offsets. Licensee may offset any expenses incurred under Section 6.2 against any payments due to Licensor under Article 3, provided that in no event shall such payments under Article 3, when aggregated with any other offsets and credits allowed under this Agreement, be reduced by more than \* (\*%) in any calendar year.

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6.4 Recovery. Any recovery obtained in an action brought by Licensee under Section 6.2 shall be distributed as follows: (i) each party shall be reimbursed for any expenses incurred in the action (including the amount of any royalty or other payments withheld from Licensor as described in Section 6.3 and including reimbursements according to Section 6.5), (ii) as to ordinary damages, Licensee shall receive an amount equal to \*, or whichever measure of damages the court shall have applied, and Licensee shall pay Licensor based upon such amount a reasonable approximation of \* and other amounts that \*, and (iii) as to special or punitive damages, the parties shall \* any award.

6.5 Cooperation. Licensor agrees to cooperate in any action under this Article which is controlled by Licensee at no charge to Licensee, provided that Licensee reimburses Licensor for any costs and expenses incurred by Licensor in connection with providing such assistance.

6.6 Right to Sublicense. Licensee shall have the sole right to sublicense any alleged infringer in the Pharmaceutical Field in the Territory for future use of the Patent Rights in accordance with the terms and conditions of this Agreement relating to sublicenses.

## ARTICLE VII INDEMNIFICATION

7.1 Indemnification by Licensee. Licensee shall indemnify, defend and hold harmless Licensor and its respective officers, directors, employees including inventors, if any, and agents and their respective successors, heirs and assigns (the "Licensee Indemnitees"), against any liability, damage, loss, or expense (including reasonable attorneys fees and expenses) incurred by or imposed upon any of the Licensee Indemnitees in connection with any claims, suits, actions, demands or judgments arising out of: (i) any theory of liability concerning any product, process or service that is made, used, sold, imported, or performed pursuant to any right or license granted under this Agreement or (ii) Licensee's breach of its representations and warranties stated in Section 8.2, to the extent such liability, loss, damage or expense is not attributable to the negligent act or omission or reckless conduct or willful misconduct of Licensee Indemnitees.

7.2 Indemnification by Licensor. Licensor shall indemnify, defend and hold harmless Licensee, its Affiliates, Sublicensees and their respective officers, directors, employees and agents and their respective successors, heirs and assigns (the "Licensor Indemnitees"), against any liability, damage, loss, or expense (including reasonable attorneys fees and expenses) incurred by or imposed upon any of the Licensor Indemnitees in connection with any claims, suits, actions, demands or judgments arising out Licensor's breach of its representations and warranties stated in Section 8.1, to the extent such liability, loss, damage or expense is not attributable to the negligent act or omission or reckless conduct or willful misconduct of Licensor Indemnitees.

7.3 Procedures. The Indemnitees agree to provide the indemnifying Party with prompt written notice of any claim, suit, action, demand, or judgment for which indemnification is sought under this Agreement. The indemnifying Party agrees, at its own expense, to provide attorneys reasonably acceptable to the other Party to defend against any such claim. The Indemnitees shall cooperate fully with the indemnifying Party in such defense and will permit

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the indemnifying Party to conduct and control such defense and the disposition of such claim, suit, or action (including all decisions relative to litigation, appeal, and settlement); provided, however, that any Indemnitee shall have the right to retain its own counsel, at the expense of the indemnifying Party, if representation of such Indemnitee by the counsel retained by the indemnifying Party would be inappropriate because of actual or potential differences in the interest of such Indemnitee and any other party represented by such counsel. The indemnifying Party agrees to keep the other Party informed of the progress in the defense and disposition of such claim and to consult with the other Party with regard to any proposed settlement.

## ARTICLE VIII REPRESENTATIONS AND WARRANTIES

8.1 Representations and Warranties of Licensor. Licensor represents and warrants to and covenants with Licensee that:

- (i) Licensor is a corporation duly organized, validly existing and in good standing under the laws of Delaware;
- (ii) Licensor has the authority and power to enter into this Agreement, and to extend the rights and licenses granted to Licensee in this Agreement;
- (iii) To Licensor's reasonable knowledge, the conception, development and reduction to practice of the Patent Rights have not constituted or involved the misappropriation of trade secrets or other rights or property of any third party;

(iv) As of the Effective Date, there are no claims, judgments or settlements against or amounts with respect thereto owed by Licensor relating to the Patent Rights;

(v) As of the Effective Date, no claim or litigation has been brought or threatened by any person alleging, that (a) the Patent Rights are invalid or unenforceable, or (b) the Patent Rights or the disclosing, copying, making, assigning, licensing, or exploiting of the Patent Rights, or products and services embodying the Patent Rights, violates, infringes or otherwise conflicts or interferes with any intellectual property or proprietary right of any third party;

(vi) To Licensor's reasonable knowledge, there is no actual or threatened infringement claim made by a third party against Licensor relating to the subject matter encompassed within the Patent Rights;

(vii) Licensor has taken all necessary action to authorize the execution, delivery and performance of this Agreement;

(viii) upon the execution and delivery of this Agreement, this Agreement shall constitute a valid and binding obligation of Licensor, enforceable in accordance with its terms, except as enforceability may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or similar laws affecting creditors' and contracting parties' rights generally and except as enforceability may be subject to general principles of

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equity (regardless of whether such enforceability is considered in a proceeding in equity or at law);

(ix) the performance of its obligations under this Agreement will not conflict with its charter documents or result in a breach of any agreements, contracts or other arrangements to which it is a party; and

(x) Licensor will not during the term of this Agreement enter into any agreements, contracts or other arrangements that would conflict with its obligations under this Agreement;

(xi) Licensor represents, warrants and covenants to Licensee that Licensor will promptly disclose to Licensee any information that Licensor learns after the Effective Date, relating to any legal conflict or litigation with a third party, threatened or actual, relating to the Patent Rights; and

(xii) Other than patent application \* and its corresponding foreign applications and resulting patents therefrom which are not licensed hereunder, Licensor represents and warrants that Exhibit B attached hereto is a complete list of all Patent Rights owned or Controlled, or licensed by Licensor as of the Effective Date of this Agreement that disclose subject matter related to \*.

8.2 Representations and Warranties of Licensee. Licensee represents and warrants to and covenants with Licensor that:

(i) Licensee is a corporation duly organized, validly existing and in corporate good standing under the laws of Illinois;

(ii) Licensee has the corporate authority and power to enter into this Agreement;

(iii) Licensee has taken all necessary action to authorize the execution, delivery and performance of this Agreement;

(iv) upon the execution and delivery of this Agreement, this Agreement shall constitute a valid and binding obligation of Licensee enforceable in accordance with its terms, except as enforceability may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or similar laws affecting creditors' and contracting parties' rights generally and except as enforceability may be subject to general principles of equity (regardless of whether such enforceability is considered in a proceeding in equity or at law);

8.3 Debarment and Exclusion. Each Party covenants, represents, and warrants that neither it, nor any of its employees, have ever been, are currently, or are, to its knowledge, the subject of a proceeding that could lead to it or such employees becoming, as applicable, a Debarred Entity or Individual, an Excluded Entity or Individual or a Convicted Entity or Individual. Each Party further covenants, represents and warrants that if, during the Term, it, or any of its employees or agents performing hereunder, become or are the subject of a proceeding

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that could lead to that Party becoming, as applicable, a Debarred Entity or Individual, an Excluded Entity or Individual or a Convicted Entity or Individual, such Party shall immediately notify the other Party, and the other Party shall have the right to immediately terminate this Agreement. This provision shall survive termination or expiration of this Agreement. For purposes of this provision, the following definitions shall apply:

(i) A "Debarred Individual" is an individual who has been debarred by the FDA pursuant to 21 U.S.C. §335a (a) or (b) from providing services in any capacity to a person that has an approved or pending drug product application.

(ii) A “Debarred Entity” is a corporation, partnership or association that has been debarred by the FDA pursuant to 21 U.S.C. §335a(a) or (b) from submitting or assisting in the submission of any abbreviated drug application, or a subsidiary or affiliate of a Debarred Entity.

(iii) An “Excluded Individual” or “Excluded Entity” is (i) an individual or entity, as applicable, who has been excluded, debarred, suspended or is otherwise ineligible to participate in federal health care programs such as Medicare or Medicaid by the Office of the Inspector General (OIG/HHS) of the U.S. Department of Health and Human Services, or (ii) is an individual or entity, as applicable, who has been excluded, debarred, suspended or is otherwise ineligible to participate in federal procurement and non-procurement programs, including those produced by the U.S. General Services Administration (GSA).

(iv) A “Convicted Individual” or “Convicted Entity” is an individual or entity, as applicable, who has been convicted of a criminal offense that falls within the ambit of 21 U.S.C. §335a(a) or 42 U.S.C. §1320a - 7(a), but has not yet been excluded, debarred, suspended or otherwise declared ineligible.

8.4 Due Diligence. Licensee shall use Commercially Reasonable Efforts to maintain an active research and development program with respect to the rights granted to Licensee under the Patent Rights. Upon the establishment of the proof of concept in the Pharmaceutical Field, with respect to such Patent Rights, Licensee agrees to utilize Commercially Reasonable Efforts to establish a licensing program to such Patent Rights. Licensee will provide Due Diligence Progress Reports to Licensor under Section 4.4.

#### ARTICLE IX ASSIGNMENT

9.1 Assignment. This Agreement may not be assigned or otherwise transferred by either Party without the prior consent of the other Party, where such consent will not be unreasonably withheld. Notwithstanding the foregoing, either Party may assign this Agreement to any of its Affiliates or to any third party to whom it sells or transfers all or substantially all of that portion of its business to which the subject matter of this Agreement relates. The assignor shall notify the other Party of such sale and transfer promptly after the date thereof. This Agreement shall be binding upon, and subject to the terms of the foregoing sentence, inure to the

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benefit of the Parties hereto, their respective successors, legal representatives and permitted assigns.

#### ARTICLE X GENERAL COMPLIANCE WITH LAWS

10.1 Compliance with Laws. Licensee shall use reasonable commercial efforts to comply with all commercially material local, state, federal, and international laws and regulations relating to the development, manufacture, use and sale of Licensed Products.

10.2 Non-Use of Licensor/Licensee Name. Neither Party shall use in any manner the other Party’s name or insignia, or any contraction, abbreviation or adaptation thereof, without the express written consent of the other Party.

10.3 No Publicity. Neither Party shall issue or make any public announcement, press release or other public disclosure regarding this Agreement or its subject without the other Party’s prior written consent, except for any such disclosure that is, in the opinion of the disclosing Party’s counsel, required by law or the rules of a stock exchange on which the securities of the disclosing Party are listed. In the event a Party is, in the opinion of its counsel, required to make a public disclosure by law or the rules of a stock exchange on which its securities are listed, such Party shall submit the proposed disclosure in writing to the other Party at least fifteen (15) business days prior to the date of disclosure for an opportunity to comment thereon. Notwithstanding the foregoing, Licensee acknowledges that the Licensor intends to file with the Securities and Exchange Commission within four (4) business days after the execution of this Agreement a Current Report on Form 8-K substantially in the form heretofore provided to Licensee.

#### ARTICLE XI TERM AND TERMINATION

11.1 Term. The Agreement shall commence upon the Effective Date and shall, unless earlier terminated pursuant to this Agreement, continue in full force and effect on a country-by-country basis until the expiration, invalidation or abandonment of the last Valid Claim of the Patent Rights in a country (including any extensions described in Section 5.4 above), at which time the Agreement shall expire in its entirety in such country (“Term”) and all licenses and sublicenses granted hereunder shall become fully-paid, royalty-free, irrevocable, perpetual, nonexclusive licenses in such country.

11.2 Voluntary Termination by Licensee. Licensee shall have the right to terminate this Agreement, in whole or with respect to any Patent Rights, on a country-by-country basis, and for any reason, upon at least \* (\*) \* prior written notice to Licensor.

11.3 Termination for Material Breach. In the event either Party commits a material breach of its obligations under this Agreement, and fails to cure that breach within sixty (60) days after receiving written notice thereof, the non-breaching Party may terminate this Agreement immediately upon written notice to the breaching Party. Notwithstanding the foregoing, if the allegedly breaching Party contests the notice of material breach, the non-

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breaching Party may terminate the Agreement only following the final, non-appealable decision by the neutral party in an ADR proceeding (see ADR Procedure, Exhibit A), and where the finding by the neutral party of a material breach is not cured within sixty (60) days after receiving written notice thereof.

11.4 Cessation of Business or Insolvency. To the extent permitted by law, if either Party shall become insolvent, or shall make or seek to make or arrange an assignment for the benefit of creditors, or if proceedings in voluntary or involuntary bankruptcy shall be initiated by, on behalf of or against such Party and, in the case of any such involuntary proceeding, not dismissed within ninety (90) days, or if a receiver or trustee of such Party's property shall be appointed and not discharged within ninety (90) days, the other Party shall have the right to terminate this Agreement.

11.5 Effect of Termination.

(a) Survival. The following provisions shall survive the expiration or termination of this Agreement: Articles 1, 7, 8, 12 and 13, and Sections 4.2 (obligation to provide final report and payment), 4.3, and 11.5 (for the period of time, if applicable, stated in each subsection). In addition, Section 2.3 shall survive, if applicable, to the extent provided in Section 11.5(e) below.

(b) Inventory. Upon the early termination of this Agreement, Licensee and its Affiliates and Sublicensees may complete and sell any work-in-progress and inventory of Licensed Products that exist as of the effective date of termination, provided that (i) Licensee pays Licensor the applicable running royalty or other amounts due on such sales of Licensed Products in accordance with the terms and conditions of this Agreement, and (ii) Licensee and its Affiliates and Sublicensees shall complete and sell all work-in-progress and inventory of Licensed Products within one (1) year after the effective date of termination.

(c) Termination for Bankruptcy. If this Agreement is terminated by Licensee pursuant to Section 11.4 due to the rejection of this Agreement by or on behalf of Licensor under Section 365 of the United States Bankruptcy Code (the "Code"), all licenses and rights to licenses granted under or pursuant to this Agreement by Licensor to Licensee are, and shall otherwise be deemed to be, for purposes of Section 365(n) of the Code, licenses of rights to "intellectual property" as defined under Section 101(35A) of the Code. The Parties agree that Licensee, as a licensee of such rights under this Agreement, shall retain and may fully exercise all of its rights and elections under the Code. Such intellectual property and all embodiments thereof shall be promptly delivered to Licensee (a) upon commencement of a bankruptcy liquidation proceeding and final declaration of dissolution upon written request therefor by Licensee, unless Licensor elects, under a plan of reorganization, to continue to perform all of its obligations under this Agreement or (b), upon the rejection of this Agreement by or on behalf of Licensor. The foregoing provisions are without prejudice to any rights Licensee may have arising under the Code or other applicable law or regulation.

(d) Sublicensees. Licensee may include a provision in any sublicense agreement, that: (i) in the event of the termination of this Agreement by either Licensor or Licensee, (ii) the sublicense agreement(s) entered into by Licensee shall remain in full force and effect with respect to the Sublicensee, provided that the Sublicensee is in compliance with the terms of the

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sublicense agreement and (iii) the Licensor (Metabolix) shall be substituted for Licensee (Abbott) for all purposes under such sublicense agreement.

(e) Post-Termination Rights to \* Patents and \* Patent Applications.

(i) \* Patents. Upon expiration of this Agreement pursuant to Section 11.1 or termination of this Agreement by \* pursuant to Section 11.\* or termination of this Agreement by \* pursuant to Section 11.\* or Section 11.\*, if an \* Patent issued prior to the termination date of this Agreement for which the \* Election Period has not yet expired, then \*. Thereafter, \* shall have no further rights thereunder.

(ii) Non-Exclusive in the \*. The non-exclusive license granted to \* in the \* in Section 2.3 shall survive, if applicable, upon the last to expire of the (x) \* or, if applicable, \* or (y) \* or, if applicable, \*.

(iii) \* Patent Application. Upon expiration of this Agreement pursuant to Section 11.1 or termination of this Agreement by \* pursuant to Section 11. \* or termination of this Agreement by \* pursuant to Section 11. \* or Section 11. \*, \* shall notify \*, of any patent application that has been filed with the United States Patent & Trademark Office claiming an invention (i) solely directed to the \* and (ii) conceived or discovered during the period beginning on \* and through \* by an employee or agent of \*, its Affiliates or \* by use of the Patent Rights (an "\* Patent Application"). \* grants to \* a \* to obtain a \* license to any such \* Patent Application, solely for use \*, upon terms and conditions to be negotiated in good faith by the parties ("\* Patent Application \*"). \* may exercise this \* Patent Application \* upon notice to \* within \* (\*) \* after the date of expiration of this Agreement pursuant to Section 11.1 or termination of this Agreement by \* pursuant to Section 11. \* or termination of this Agreement by \* pursuant to Section 11. \* or Section 11. \* ("\* Patent Application \* Election Period"). In the event that \* exercises the \* Patent Application \*, the Parties shall enter into good faith negotiations for a commercially reasonable sublicensing agreement for the specific field of interest, \*. The financial terms associated with such agreement will include, to the extent usual and customary for the applicable field of use, a license fee, annual maintenance fees, milestones, royalties on net sales and \* and the absolute values for such financial terms will be usual and customary for the scope of rights and field of use and, \*, will reflect the proportionate value provided by the \* relative to any other patents that are encompassed in such agreement. If the Parties, in good faith negotiations, are unable to reach agreement within ninety days (90) days after the date upon which \* exercised the \* Patent Application \* ("\* Patent Application Negotiation Period"), then neither Party shall be under any obligation to continue such negotiations; provided that if the Parties are unable to agree upon what constitutes commercially reasonable financial terms, then \* may submit the issue to Alternative Dispute Resolution under Section 12.1.

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Notwithstanding anything to the contrary in this Agreement, \* understands and agrees that if \* or any of its Affiliates acquires, is acquired by, or merges or consolidates with a third party (each a "Change in Control"), the \* Patent Application \* shall not apply to any patent that otherwise meets the definition of "\*\* Patent Application" if such patent application was already owned or otherwise controlled by the other party to such Change in Control as of the effective date of said Change in Control, and is the subject of an agreement that would not allow\*, its Affiliates and/or said third party to agree to this provision. For example only and not to limit the generality of the foregoing, if \* acquires a third party that owns or is the licensee of a patent application that meets the definition of "\*\* Patent Application", and on the effective date of the Change in Control, said third party had exclusively licensed its rights to said "\*\* Patent Application", then the patent application that is the subject of such exclusive license is not available to \* under this Section.

(f) Abbott's Termination Pursuant to Section 11.3. If a neutral, in accordance with the procedures set forth in Section 12.1, has rendered a ruling that Metabolix has materially breached Section 8.1, and either Metabolix has failed to comply with the remedies imposed on it for such breach ("Adverse Ruling") within the time period specified therein for compliance, or such material breach cannot be remedied, upon termination by Abbott pursuant to Section 11.3, all rights and licenses granted to Abbott pursuant to Article II shall become fully paid-up, perpetual and irrevocable rights and licenses.

## ARTICLE XII DISPUTE RESOLUTION

12.1 Dispute Resolution. In the event a dispute arises under this Agreement between the Parties, they shall in the first instance, explore whether the dispute can be resolved without more formal proceedings. If the Parties are unable to resolve the dispute, the Parties shall follow the alternative dispute resolution provisions provided for in Exhibit A.

## ARTICLE XIII MISCELLANEOUS

13.1 Notice. Any notices required or permitted under this Agreement shall be in writing, shall specifically refer to this Agreement, and shall be sent by recognized national overnight courier, confirmed facsimile transmission, confirmed electronic mail, or registered or certified mail, postage prepaid, return receipt requested, or delivered by hand to the following addresses or facsimile numbers of the parties:

If to Licensor: Metabolix, Inc.  
21 Erie Street  
Cambridge, MA 02139  
Attention: General Counsel  
Telephone: (617) 583-1700  
Facsimile: (617) 583-1767

If to Licensee: Abbott Laboratories

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Legal Division — Domestic Legal Operations  
100 Abbott Park Road  
Abbott Park, Illinois 60064-6400 USA

Attention: Division Vice President  
Facsimile: (847) 938-1206

Payments from Licensee under Article III shall be sent to:

Metabolix, Inc.  
21 Erie Street  
Cambridge, MA 02139  
Attention: Accounts Receivable, or by wire transfer in accordance with wiring instructions provided by

Licensor from time to time.

Reports from the Licensee under Article IV shall be sent to:

Metabolix, Inc.  
21 Erie Street  
Cambridge, MA 02139  
Attention: Chief Scientific Officer

All notices under this Agreement shall be deemed effective upon receipt. A party may change its contact information immediately upon written notice to the other party in the manner provided in this Section.

13.2 Governing Law. This Agreement and all disputes arising out of or related to this Agreement, or the performance, enforcement, breach or termination hereof, and any remedies relating thereto, shall be construed, governed, interpreted and applied in accordance with the laws of Illinois, without regard to conflict of laws principles, except that questions affecting the construction and effect of any patent shall be determined by the law of the country in which the patent shall have been granted.

13.3 Confidentiality. During the Term and for a period of \* (\*) years after the expiration or termination of this Agreement, each party agrees not to disclose Confidential Information received from the other to any third person and not to use Confidential Information for any purpose other than as indicated in this Agreement, without the prior written approval of the disclosing Party. Confidential Information shall include all information provided under

this Agreement, except any portion thereof which is: (a) known to the receiving Party, as evidenced by its written records, prior to receipt thereof under this Agreement; (b) disclosed to the receiving Party by a third person after the full execution of this Agreement, and that third person has a legal right to make such disclosure; (c) or becomes part of the public domain other than through breach of this Agreement by recipient; or (d) independently developed by or for the receiving Party as evidenced by its written records, without reference to Confidential Information received from the disclosing Party. If, in the opinion of the receiving Party's counsel, any of the disclosing Party's Confidential Information is required to be disclosed pursuant to law, regulation, or court order, the receiving Party shall give the disclosing Party prompt, written notice (and in any case at least fifteen (15) business days notice) in order to

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allow the disclosing Party to take whatever action it deems necessary to protect its Confidential Information. In the event that no protective order or other remedy is obtained, or the disclosing Party waives compliance with the terms of this Agreement, receiving Party will furnish only that portion of the Confidential Information which receiving Party is advised by counsel is legally required.

13.4 Force Majeure. Neither party will be responsible for delays resulting from causes beyond the reasonable control of such party, including without limitation fire, explosion, flood, war, strike, or riot, provided that the non-performing party uses commercially reasonable efforts to avoid or remove such causes of nonperformance and continues performance under this Agreement with reasonable dispatch whenever such causes are removed.

13.5 Amendment and Waiver. This Agreement may be amended, supplemented, or otherwise modified only by means of a written instrument signed by both parties. Any waiver of any rights or failure to act in a specific instance shall relate only to such instance and shall not be construed as an agreement to waive any rights or fail to act in any other instance, whether or no similar.

13.6 Severability. If any provision of this Agreement is held by a court of competent jurisdiction to be invalid or unenforceable, it shall be modified, if possible, to the minimum extent necessary to make it valid and enforceable or, if such modification is not possible, it shall be stricken and the remaining provisions shall remain in full force and effect; provided, however, that if a provision is stricken as to materially affect the economic benefits of this Agreement, the Party adversely affected may terminate this Agreement upon sixty (60) days written notice to the other Party.

13.7 Binding Effect. This Agreement shall be binding upon and inure to the benefit of the parties and their respective permitted successors and assigns.

13.8 Headings. All headings are for convenience only and shall not affect the meaning of any provision of this Agreement.

13.9 Entire Agreement. Prior to the execution of this Agreement, the Parties have had numerous discussions, conversations and negotiations, and have generated correspondence, writings and other memoranda with respect to the subject matter of this Agreement; notwithstanding which, this Agreement is intended to define the full extent of the Parties' respective agreements, arrangements and obligations with respect to the subject matter hereof and each Party represents that it is not relying on any such other discussions, conversations, negotiations, correspondence, writings and memoranda in executing and delivering this Agreement or performing its respective obligations hereunder. This Agreement shall not be changed or modified orally, but only by an instrument in writing signed by both parties.

13.10 Counterparts. This Agreement may be executed in two (2) or more counterparts, each of which shall be deemed an original and both of which, taken together shall constitute one and the same instrument. Signatures to this Agreement transmitted by facsimile transmission, by electronic mail in "portable document format" (".pdf") form, or by any other electronic means

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intended to preserve the original graphic and pictorial appearance of a document, will have the same effect as physical delivery of the paper document bearing the original signature.

[Remainder of page intentionally left blank.]

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their duly authorized representatives.

**METABOLIX, INC.**

**ABBOTT LABORATORIES**

By: /s/ Jay Kouba  
(Signature)

By: /s/ Sean E. Murphy  
(Signature)

JAY KOUBA  
(Printed Name)

SEAN E. MURPHY  
(Printed Name)

President & CEO  
(Title)

VP Business Development  
(Title)

November 9, 2007  
(Date)

11/16/07  
(Date)

[SIGNATURE PAGE TO THE EXCLUSIVE LICENSE AGREEMENT]

**EXHIBIT A**  
**ALTERNATIVE DISPUTE RESOLUTION**

The Parties recognize that from time to time a dispute may arise relating to either Party's rights or obligations under this Agreement. The Parties agree that any such dispute shall be resolved by the Alternative Dispute Resolution ("ADR") provisions set forth in this Exhibit, the result of which shall be binding upon the Parties.

To begin the ADR process, a Party first must send written notice of the dispute to the other Party for attempted resolution by good faith negotiations between their respective presidents (or their designees) of the affected subsidiaries, divisions, or business units within twenty-eight (28) days after such notice is received (all references to "days" in this ADR provision are to calendar days). If the matter has not been resolved within twenty-eight (28) days of the notice of dispute, or if the Parties fail to meet within such twenty-eight (28) days, either Party may initiate an ADR proceeding as provided herein. The Parties shall have the right to be represented by counsel in such a proceeding.

1. To begin an ADR proceeding, a Party shall provide written notice to the other Party of the issues to be resolved by ADR. Within fourteen (14) days after its receipt of such notice, the other Party may, by written notice to the Party initiating the ADR, add additional issues to be resolved within the same ADR.
2. Within twenty-one (21) days following the initiation of the ADR proceeding, the Parties shall select a mutually acceptable independent, impartial and conflicts-free neutral to preside in the resolution of any disputes in this ADR proceeding. If the Parties are unable to agree on a mutually acceptable neutral within such period, each Party will select one independent, impartial and conflicts-free neutral and those two neutrals will select a third independent, impartial and conflicts-free neutral within ten (10) days thereafter. None of the neutrals selected may be current or former employees, officers or directors of either Party, its subsidiaries or affiliates.
3. No earlier than twenty-eight (28) days or later than fifty-six (56) days after selection, the neutral(s) shall hold a hearing to resolve each of the issues identified by the Parties. The ADR proceeding shall take place at a location agreed upon by the Parties. If the Parties cannot agree, the neutral(s) shall designate a location other than the principal place of business of either Party or any of their subsidiaries or affiliates.
4. At least seven (7) days prior to the hearing, each Party shall submit the following to the other Party and the neutral(s):
  - (a) a copy of all exhibits on which such Party intends to rely in any oral or written presentation to the neutral;
  - (b) a list of any witnesses such Party intends to call at the hearing, and a short summary of the anticipated testimony of each witness;

(c) a proposed ruling on each issue to be resolved, together with a request for a specific damage award or other remedy for each issue. The proposed rulings and remedies shall not contain any recitation of the facts or any legal arguments and shall not exceed one (1) page per issue. The Parties agree that neither side shall seek as part of its remedy any punitive damages.

(d) a brief in support of such Party's proposed rulings and remedies, provided that the brief shall not exceed twenty (20) pages. This page limitation shall apply regardless of the number of issues raised in the ADR proceeding.

Except as expressly set forth in subparagraphs 4(a) - 4(d), no discovery shall be required or permitted by any means, including depositions, interrogatories, requests for admissions, or production of documents.

5. The hearing shall be conducted on two (2) consecutive days and shall be governed by the following rules:
  - (a) Each Party shall be entitled to five (5) hours of hearing time to present its case. The neutral shall determine whether each Party has had the five (5) hours to which it is entitled.
  - (b) Each Party shall be entitled, but not required, to make an opening statement, to present regular and rebuttal testimony, documents or other evidence, to cross-examine witnesses, and to make a closing argument. Cross-examination of witnesses shall occur immediately after their direct testimony, and cross-examination time shall be charged against the Party conducting the cross-examination.
  - (c) The Party initiating the ADR shall begin the hearing and, if it chooses to make an opening statement, shall address not only issues it raised but also any issues raised by the responding Party. The responding Party, if it chooses to make an opening statement, also shall address all issues raised in the ADR. Thereafter, the presentation of regular and rebuttal testimony and documents, other evidence, and closing arguments shall proceed in the same sequence.
  - (d) Except when testifying, witnesses shall be excluded from the hearing until closing arguments.
  - (e) Settlement negotiations, including any statements made therein, shall not be admissible under any circumstances. Affidavits prepared for purposes of the ADR hearing also shall not be admissible. As to all other matters, the neutral(s) shall have sole discretion regarding the admissibility of any evidence.

6. Within seven (7) days following completion of the hearing, each Party may submit to the other Party and the neutral(s) a post-hearing brief in support of its proposed rulings and remedies, provided that such brief shall not contain or discuss any new evidence and shall

not exceed ten (10) pages. This page limitation shall apply regardless of the number of issues raised in the ADR proceeding.

7. The neutral(s) shall rule on each disputed issue within fourteen (14) days following completion of the hearing. Such ruling shall adopt in its entirety the proposed ruling and remedy of one of the Parties on each disputed issue but may adopt one Party's proposed rulings and remedies on some issues and the other Party's proposed rulings and remedies on other issues. The neutral(s) shall not issue any written opinion or otherwise explain the basis of the ruling.

8. The neutral(s) shall be paid a reasonable fee plus expenses. These fees and expenses, along with the reasonable legal fees and expenses of the prevailing Party (including all expert witness fees and expenses), the fees and expenses of a court reporter, and any expenses for a hearing room, shall be paid as follows:

(a) If the neutral(s) rule(s) in favor of one Party on all disputed issues in the ADR, the losing Party shall pay 100% of such fees and expenses.

(b) If the neutral(s) rule(s) in favor of one Party on some issues and the other Party on other issues, the neutral(s) shall issue with the rulings a written determination as to how such fees and expenses shall be allocated between the Parties. The neutral(s) shall allocate fees and expenses in a way that bears a reasonable relationship to the outcome of the ADR, with the Party prevailing on more issues, or on issues of greater value or gravity, recovering a relatively larger share of its legal fees and expenses.

9. The rulings of the neutral(s) and the allocation of fees and expenses shall be binding, non-reviewable, and non-appealable, and may be entered as a final judgment in any court having jurisdiction.

10. Except as provided in paragraph 9 or as required by law, the existence of the dispute, any settlement negotiations, the ADR hearing, any submissions (including exhibits, testimony, proposed rulings, and briefs), and the rulings shall be deemed Confidential Information. The neutral(s) shall have the authority to impose sanctions for unauthorized disclosure of Confidential Information.

11. All ADR hearings shall be conducted in the English language.

**EXHIBIT B**  
**Patents and Patent Applications**

1. \*
2. \*
3. \*
4. \*
5. \*
6. \*

METABOLIX, INC.EMPLOYEE NONCOMPETITION, CONFIDENTIALITY AND INVENTIONS AGREEMENT

The undersigned Richard P. Eno [print name], in consideration and as a condition of my employment and continued employment by Metabolix, Inc. (the "Company"), a Delaware corporation, does hereby agree with the Company as follows:

1. Noncompetition and Nonsolicitation. During my employment by the Company and for a period of one (1) year thereafter, I will not directly or indirectly, alone or as a partner, joint venturer, consultant, officer, director, employee, agent, independent contractor or stockholder be engaged in any "competitive business" as hereinafter defined. The term "competitive business" (i) shall mean any business (however organized or conducted) that competes with a business in which the Company was engaged, or in which the Company was planning to engage, at any time during the 12-month period immediately preceding the date on which my employment terminates, and (ii) shall conclusively be presumed to include, but shall not be limited to, a business engaging in metabolic engineering of polyhydroxyalkanoates and the development and sale of biobased and/or biodegradable polymers; provided, however, that the record or beneficial ownership by me of 1% or less of the outstanding publicly traded capital stock of any such company or business organization shall not be deemed, in and of itself, to be in violation of this Section 1; or (ii) employ, or knowingly permit any company or business organization which is directly or indirectly controlled by me to employ, any person who is employed by the Company, or is an agent, representative or consultant of the Company, or in any manner seek to solicit or induce any such person to leave his or her employment with the Company or assist in the recruitment of any such person; or (iii) directly or indirectly solicit any customer of the Company (other than on behalf of the Company) to terminate or negatively alter his, her or its relationship with the Company or directly or indirectly induce any customer, supplier, vendor, consultant or independent contractor of the Company to terminate or negatively alter his, her or its relationship with the Company.

2. Confidentiality. I will not at any time, whether during or after the termination of my employment, reveal to any person, association, company, entity or other organization any of the trade secrets or confidential information of the Company or of any third party to whom the Company is under an obligation of confidentiality (including but not limited to trade secrets or confidential information respecting inventions, products, research and development activities, designs, methods, know-how, techniques, processes, plans and proposals, marketing and selling, business plans, budgets and unpublished financial statements, licenses, prices and costs, suppliers and customers) except as may be required in the ordinary course of performing my duties as an employee of the Company. Further, I shall not use any such trade secrets or confidential information except as required in the performance of my duties for the Company. Without limiting the generality of the foregoing, I shall not use any such trade secrets or confidential information for my personal benefit or in any manner which may injure or cause loss, whether directly or indirectly, to the Company.

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Further, I agree that, during my employment I shall not make, use or permit to be used any notes, memoranda, drawings, specification, programs, data, lab results, lab notes, formulas, codes or other materials of any nature relating to the business of the Company or concerning any of its dealings or affairs otherwise than for the benefit of the Company. I further agree that I shall not, after the termination of my employment, use or permit to be used any such materials, it being agreed that all of the foregoing are and shall be confidential information or trade secrets of the Company and shall be and remain the sole and exclusive property of the Company, and immediately upon the termination of my employment I shall deliver all of the foregoing, and all copies thereof, to the Company. Notwithstanding anything to the contrary contained in this Section 2, for purposes of this Agreement, confidential information does not include information which: (i) is or was known to me prior to my employment with the Company, (ii) is known in the trade or becomes generally known to the public through no action on my part; (iii) is generally disclosed to third parties by the Company without restriction on such third parties; (iv) is approved for release by written authorization of the management or Board of Directors of the Company; or (v) is required to be disclosed pursuant to subpoena, order of judicial or administrative authority, or in connection with judicial proceedings to which the Company or I am a party.

3. Inventions and Intellectual Property. If at any time or times during my employment I (either alone or with others) make, conceive, discover, reduce to practice or become possessed of any Intellectual Property, as hereinafter defined, such Intellectual Property shall be the sole and absolute property of the Company, as works made for hire or otherwise, and I hereby assign to the Company all of my rights in such Intellectual Property. For purposes hereof, "Intellectual Property" shall mean any invention, modification, discovery, design, development, improvement, process, formula, code, data, technique, know-how, trade secret, work of authorship or intellectual property right whatsoever or any interest therein (whether or not patentable or registrable under copyright or similar statutes) that (a) relates to metabolic engineering of polyhydroxyalkanoates or any other business of the Company or any of the products or services being developed, manufactured or sold by the Company or which may be useful in connection therewith, and (b) results from tasks assigned to me by the Company, or (c) results from the use of facilities owned, leased or contracted for by the Company or (d) are authored, conceived, reduced to practice, made, developed or created (alone or in conjunction with others, during regular hours of work or otherwise) or otherwise obtained by me during my employment with the Company or in the performance of my duties. The term Intellectual Property does not include inventions, modifications, discoveries, designs, developments, improvements, processes, formulae, codes, data, techniques, know-how, trade secrets, works of authorship or intellectual property rights or any interest therein (whether or not patentable or registrable under copyright or similar statutes) of any kind whatsoever which were in my possession prior to my employment by the Company and which were not obtained from or through the Company or not developed, prepared, compiled, conceived, reduced to practice or otherwise created or made using the Company's information, data, equipment, supplies or facilities.

I shall promptly disclose to the Company (or any persons designated by it) all such Intellectual Property and any information relating thereto. I shall also promptly disclose to the Company, and the Company hereby agrees to receive all such disclosures in confidence, any

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other invention, modification, discovery, design, development, improvement, process, formula, code, data, technique, know-how, trade secret, work of authorship or intellectual property right whatsoever or any interest therein (whether or not patentable or registrable under copyright or similar statutes) made, conceived, discovered, reduced to practice or possessed by me (either alone or with others) at any time or times during my employment, for the purposes of determining whether they constitute "Intellectual Property" as defined above.

During my employment and at any time thereafter I will, at the request and cost of the Company, sign, execute, make and do all such deeds, documents, acts and things as the Company and its duly authorized agents may reasonably require to apply for, obtain and vest in the name of the Company

alone (or as the Company otherwise directs) and to defend, enforce and maintain any patents, patent applications, copyrights, or other analogous protection with respect to the Intellectual Property in any country throughout the world. The Company agrees to pay any and all copyright, trademark and patent fees and expenses or other costs incurred by me for any assistance rendered to the Company pursuant to this Section 3 and to promptly reimburse me for all costs, fees and expenses incurred by me in perfecting its property rights in the Intellectual Property, including, without limitation, my attorney's fees and legal costs. My obligations to assign Intellectual Property shall not apply to any Intellectual Property which I can demonstrate: (i) was developed entirely on my own time and effort; (ii) no equipment, supplies, facilities, resources, trade secrets or confidential information of the Company was used in the development of the Intellectual Property; (iii) does not relate to the business of the Company or to the Company's actual or anticipated research and development; and (iv) does not result from any work otherwise performed by me for the Company.

If the Company is unable, after reasonable effort, to secure my signature on any such application or other document relating to any Intellectual Property, whether because of my physical or mental incapacity or for any other reason whatsoever, I hereby irrevocably designate and appoint the Company and its duly authorized officers and agents as my agent and attorney-in-fact, to act for and in my behalf and stead to execute and file any such application(s) or document(s) and to do all other lawfully permitted acts to further the prosecution and issuance of letters patent, copyright or other analogous protection thereon with the same legal force and effect as if executed by me.

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

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

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

5. No Conflict. Except as provided in the next paragraph of this Section 5, I represent that my performance of the terms of this Agreement, and my performance of my duties as an employee

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of the Company, does not and will not breach any agreement to which I am bound, including without limitation any agreement to keep in confidence proprietary information acquired by me in confidence or in trust prior to my employment by the Company. I have not entered into, and I agree that I will not enter into, any agreement, either written or oral, in conflict herewith. During my employment by the Company, I will not improperly use or disclose any confidential information or trade secrets, if any, of any former employer or any other person to whom I have an obligation of confidentiality, and I will not bring onto the premises of the Company any unpublished documents or any property belonging to any former employer or any other person to whom I have an obligation of confidentiality unless consented to in writing by that former employer or person. I will use in the performance of my duties only information which is generally known and used by persons with training and experience comparable to my own, which is common knowledge in the industry or otherwise legally in the public domain, or which is otherwise provided or developed by the Company.

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

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

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

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

8. Amendments. Any amendment to or modification of this Agreement, and any waiver of any provision hereof, shall be in writing and shall be signed by the parties hereto. Any waiver by either party of a breach of any provision of this Agreement shall not operate or be construed as a waiver of any subsequent breach hereof.

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

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

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

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

EXECUTED as of the 20th day of February, 2008.

/s/ Richard P. Eno

Signature

Name: Richard P. Eno

Address: \_\_\_\_\_

Accepted and Agreed:

METABOLIX, INC.

By: /s/ Anthony J. Sinskey

Name: Anthony J. Sinskey

Title: Chairman of the Compensation Committee

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We hereby consent to the incorporation by reference in the Registration Statements on Forms S-3 (No. 333-148758) and S-8 (Nos. 333-138631, 333-145232) of Metabolix, Inc. of our report dated March 13, 2008 relating to the financial statements and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP  
Boston, Massachusetts  
March 13, 2008

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**CERTIFICATIONS**

I, Jay Kouba, President, Chief Executive Officer and Principal Financial Officer of Metabolix, Inc., 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 13, 2008

/s/ JAY KOUBA

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Name: Jay Kouba  
Title: President and Chief Executive Officer  
(Principal Executive Officer and Principal  
Financial Officer)

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[EXHIBIT 31.1](#)

[CERTIFICATIONS](#)

**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, 2007 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I Jay Kouba, President, Chief Executive Officer and Principal Financial 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.

Dated: March 13, 2008

/s/ JAY KOUBA

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President and Chief Executive Officer  
(Principal Executive Officer and Principal Financial Officer)

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[EXHIBIT 32.1](#)

[CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002](#)

Metabolix  
21 Erie Street  
Cambridge, MA 02139-4260  
Tel: 617-583-1700 Fax: 617-583-1767  
Web: www.metabolix.com

Securities and Exchange Commission  
100 F Street, NE  
Washington, DC 20549  
Attn: Filing Desk

March 13, 2008

Re: Metabolix, Inc. - SEC File No. 001-33133  
Form 10-K for Fiscal Year Ended December 31, 2007

Dear Sir or Madam:

Enclosed for filing on behalf of Metabolix, Inc. (the "Company") pursuant to the Securities Exchange Act of 1934, as amended, is the Annual Report on Form 10-K for the fiscal year ended December 31, 2007. This filing is being effected by direct transmission to the Commission's EDGAR filing system.

Please be advised that the financial statements in the Form 10-K do not reflect a change in any accounting principles or practices, or in the method of applying such principles and practices, from the financial statements filed in connection with the fiscal year ended December 31, 2007.

Please feel free to call the undersigned or Aninda Katragadda, Controller, at 617-583-1700 with any questions that you may have.

Very truly yours,

/s/ Sarah P. Cecil  
Sarah P. Cecil  
General Counsel

Enclosures

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